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United States
Department of
Agriculture

Economic
Research
Service

RS-85-2
May 1985

East Asia

Outlook and Situation Report

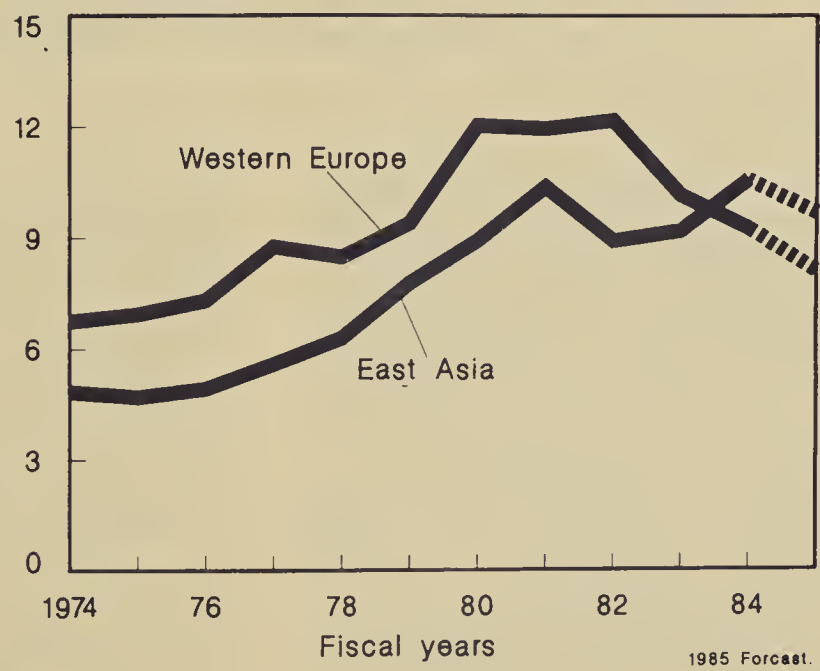
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MAY 31 1985

U.S. Farm Exports

Billion dollars



East Asia to remain
No. 1 U.S. Market

CONTENTS

| | | | |
|----|-------------------------|----|-----------------------------------|
| 5 | Regional Overview | 37 | Special Articles |
| 5 | The Macroeconomy | | Prospects for East Asia's |
| 11 | U.S. Agricultural Trade | | Textile Industry |
| | with East Asia | | Implications for U.S. |
| 16 | Hong Kong | | Cotton Exports |
| 18 | Japan | 43 | East Asia's Feed-Livestock |
| 27 | South Korea | | Economy: Prospects to 1995 |
| 32 | Taiwan | 48 | U.S. Credit and Market |
| | | | Development Programs in East Asia |

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Approved by the World Agricultural Outlook Board. Summary released April 19. **East Asia Outlook and Situation** is one in a series of 11 regional reports published annually by the Economic Research Service. Other titles in the series: Western Europe, USSR, China, South Asia, Southeast Asia, Latin America, Eastern Europe, North America and Oceania, Middle East and North Africa, and Sub-Saharan Africa. Annual subscriptions and single copies are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. For ordering and pricing information, call the GPO order desk at (202) 783-3238.

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Note: East Asia refers to the countries of Japan, South Korea, Taiwan, and Hong Kong. Tons are metric; dollars are U.S.; references to years are calendar years; split years, e.g. 1983/84 are October-September, unless specified otherwise; and rice data are for milled rice unless specified otherwise.

SUMMARY

U.S. agricultural exports to East Asia are forecast at \$9.6 billion for fiscal 1985. This is down from last year's record \$10.6 billion, which put East Asia ahead of Western Europe for the first time as the most important U.S. regional market. The decline is from weaker commodity prices, slower economic growth in the region, and heightened competition from other exporters.

Economic growth is expected to slow after last year's robust performances by most of the region's countries. This will constrain growth in the region's income-sensitive livestock sectors and affect demand for imported feedstuffs. In Japan, economic growth is expected to fall below 5 percent this year, from 5.6 percent in 1984. Growth in South Korea and Taiwan is also expected to slow.

The region's coarse grain imports in 1984/85 are forecast at 28.9 million tons, about the same as the year before. The leveling coarse grain demand comes mainly from slower growth in the region's poultry meat and egg industries, reduced hog feeding due to herd liquidation in Taiwan and South Korea, and the availability of favorably priced substitutes.

Competition for the region's feed grain market should be keen this year. Chinese corn, Australian sorghum and feed wheat, and Argentine sorghum could limit U.S. exports to 20.5 million tons, down from last year. Also South Korea will release for feeding purposes supplies of barley from Government-controlled inventories, and Taiwan will release rice.

In 1984, the region's crop and livestock production expanded 5 and 4 percent, respectively. Japan had its best year since 1979, with rice production up 15 percent over 1983. Japan's livestock expansion was comparable to recent years but not as strong

as in the late 1970's. Crop production in South Korea was led by the largest rice crop since 1978, while in Taiwan, successful efforts to cut rice production lowered crop production 2 percent. In both countries, cyclical adjustments in the hog sectors heavily influenced livestock production.

Despite strong economic growth in the region, imports of major agricultural commodities grew only 2 percent in 1984. Increases in Japan and Hong Kong offset declines in Korea and Taiwan. The region's total imports of soybeans, coarse grain, and beef declined while poultry meat rose only slightly. Among major commodities, wheat, pork, cotton, and cattle hides showed substantial import growth in 1984.

Developments in the region's agricultural policies were highlighted by the August 1984 U.S.-Japan beef and citrus accord, South Korean trade restrictions to cope with low livestock prices and surplus barley, and Taiwan's rice diversion program. New U.S. country-of-origin rules for textiles, effective late last year, will have their biggest impact on Hong Kong, but should not have a significant impact on U.S. cotton trade with the region.

The preeminence of the region's textile industry is challenged by low-wage textile exporters and weaker European currencies. U.S. exports of raw cotton to the region, currently 820,000 tons, are expected to drop to 650,000 tons by 1990 because of reduced import demand and more intense competition from China and Australia.

Projections of East Asia's 1995 imports of coarse grain suggest that this land-scarce region will continue to be a major importer. Growth in the region's livestock economies, although expected to be slower than in the 1970's, should lead to a 60-percent increase in coarse grain imports in 10 years.

East Asia



REGIONAL OVERVIEW

The Macroeconomy

Export Growth Boosts East Asian Economies

East Asia enjoyed a prosperous year in 1984, with real income growing at 6 percent. Strong export demand, especially from the United States, provided the region's main stimulus to overall growth. Domestic demand components were generally weaker.

The region's balance of payments shifted in 1984 strongly toward surplus, mainly reflecting the almost doubling of the U.S. trade deficit to \$123.3 billion. Bilateral trade balances with the United States all showed large surpluses. These shifts raised the likelihood of continued friction over trade issues between the United States and its East Asian trading partners.

Japan

The continuing U.S. economic recovery played a key role in Japan's export-led growth in 1984. Merchandise exports rose 15.9 percent, stimulating strong growth in industrial production and corporate investment. Industrial growth helped raise real gross domestic product (GDP) growth to 5.6 percent from 2.9 in 1983. Imports, however, grew only 8.0 percent, allowing the trade surplus to grow 42 percent, to \$44.4 billion. The imbalance in U.S.-Japanese trade increased dramatically, with Japan's bilateral trade surplus growing 82 percent to \$33.1 billion.

Despite this, the yen depreciated 8.1 percent relative to the dollar. The differential in U.S.-Japanese interest rates, reinforced by policy measures aimed at liberalizing Japanese capital markets, stimulated a huge capital outflow from Japan. The depreciation further contributed to Japanese competitiveness in foreign markets, worsening the trade imbalance.

The large and growing U.S.-Japanese trade deficit helped fuel U.S. resentment over Japan's formal and informal trade barriers. While these mainly affect manufactured goods, they also limit imports of beef, citrus,

and some other agricultural products. In March-April 1985, both houses of the U.S. Congress overwhelmingly passed resolutions urging the President to restrict imports of Japanese autos, electronics, and telecommunications products, unless Japan opens its markets fully to U.S. exports. The resolutions were passed as a response to the Japanese Government's announcement that auto exports to the United States would be allowed to rise 25 percent, and because U.S.-Japanese talks on opening the Japanese market to foreign telecommunications equipment had stagnated.

Unless the U.S. exchange rate declines considerably, the U.S.-Japanese trade gap is likely to grow, raising the likelihood of further deterioration in trade relations, especially when the United States enters a new economic slowdown. A major trade conflict would almost certainly hurt U.S. agricultural exports to Japan by slowing Japanese income growth and possibly by provoking Japanese retaliation against U.S. exports.

In contrast to the strong growth of exports and export-induced industrial investment, consumer demand and residential investment grew slowly. Household consumption expenditure rose an estimated 5.4 percent, with most remaining household income gains going into savings and increased taxes.

South Korea

Real income in South Korea grew at an annual 9.8 percent in the first quarter of 1984, boosted by growing exports and strong domestic demand. Following the 9.5-percent real growth in 1983, this pace proved unsustainable: a growing deficit on current account and the prospect of rekindled inflation prompted the Government to tighten monetary and fiscal policies sharply in the second quarter.

Domestic demand slackened quickly, and Korea finished the year with real income growth of 7.9 percent. Restraint and the decline in the price of imported oil helped reduce consumer price inflation to a record 2.3 percent, down from 3.4 in 1983 and contrasting with the 18.9-percent average for 1978-82.

Merchandise exports grew 19.6 percent, while imports grew 16.9 percent; the trade deficit declined to \$1.1 billion from \$1.8 billion in 1983. As in Japan, export growth largely reflected increased sales to the United States. Exports to the United States grew 27 percent, to \$10.5 billion, boosting the U.S. share of Korea's exports to 36 percent and raising Korea's bilateral trade surplus with the United States to a record \$3.6 billion. The current account deficit declined from \$1.6 billion to \$1.4 billion. Increased interest payments on Korea's large foreign debt and reduced demand by Middle East oil-exporting countries for Korean construction services offset some of the gains in the trade balance.

Korea borrowed an additional \$2.6 billion in 1984 to finance its current account deficit and to fund new projects, raising gross foreign debt to \$43.1 billion. The debt-service ratio remained roughly constant at 19 percent. Korea's foreign debt is the largest in Asia and one of the largest in the world, but the nation's consistently strong export performance has convinced the international financial community of its creditworthiness.

Nevertheless, important goals of Government policy will be to control the growth of debt in the short run and reduce it in the long run. Korea's need to restrain the growth of its foreign debt has been a major deterrent to liberalizing its tight restrictions on imports of animal products, horticultural products, and processed foods, as well as those of many manufactured goods.

The rapid growth of Korean manufactured exports to the United States, the recent emergence of a large bilateral trade imbalance between the two countries, and Korea's own import restrictions have created pressure for the United States to further restrict imports from South Korea. The United States quickened its "calls" (interim halts on further imports of specific products) on textile and garment products from South Korea, as well as from other Asian textile exporters.

Allegations of dumping were leveled at a number of Korean products in 1983 and 1984, and penalty duties were imposed on imported Korean color televisions. Finally, President Reagan rejected in September the recommendation of the U.S. International

Trade Commission (ITC) that quotas and increased tariffs be applied to Korean exports of several types of steel products, but in December the United States pressured Korea into agreeing to a sharp reduction in steel exports to the United States.

Taiwan

Strong growth in exports to the United States helped Taiwan achieve the region's fastest growth in 1984. Real GDP grew 10.9 percent, raising per capita income just over \$3,000. Total exports grew 21.2 percent, while exports to the United States grew 31.2 percent to \$14.9 billion, nearly half of total exports. Increased export sales raised Taiwan's trade surplus to a record \$8.5 billion (the third consecutive record), while the bilateral trade surplus with the United States grew to \$9.8 billion from \$6.7 billion in 1983. Consumer prices remained essentially unchanged during the year.

Domestic investment in Taiwan remained disturbingly slow due to the export boom. Real fixed investment grew only 4.4 percent, far below the pace normally expected with such strong export growth. Some observers attributed sluggish investment to doubts over the duration of the U.S. recovery, while others blamed conservative lending policies among the island's bankers. Without continued heavy investment in new equipment and technology, Taiwan officials worry that the island will eventually lose its competitive edge in world markets as rising real wages push up production costs.

Taiwan's other main concern for the future is the threat of increased protection in the United States. So far, the U.S. response to Taiwan's huge trade surplus and the increasing penetration of U.S. markets by Taiwan's exports has been relatively restrained. The United States levied antidumping penalty duties on color televisions and steel pipe and tubing, and the U.S. Rice Millers Association sought reduced exports of heavily subsidized Taiwan rice. New U.S. "rules of origin" on garment imports threatened to block about \$100 million of garments, which were partially produced in Taiwan-owned factories in Indonesia and the Philippines, shipped to Taiwan to be finished, and exported to the United States.

Taiwan avoided a more vigorous U.S. reaction when it agreed to U.S. demands for a number of changes in its foreign trade policies. The changes led to reduced tariffs on 59 products imported largely from the United States. These included 41 minor agricultural and forestry items, notably almonds, prunes, and walnuts. Taiwan also agreed to phase out its 10-percent import tariff surcharge by the end of 1985. It is widely expected that Taiwan will expand purchases of some U.S.-produced jet aircraft and other heavy industrial goods in hopes of bringing down the trade surplus in 1985.

Hong Kong

The economic pace in Hong Kong picked up markedly in 1984, following slow growth in 1982/83; real GDP rose 9.6 percent. As in the rest of East Asia, export growth took most of the credit for the recovery. Domestic exports (those of Hong Kong-produced goods) rose 32 percent to \$17.7 billion, while reexports jumped 48 percent to \$10.7 billion. Total exports to the United States rose 33 percent to \$9.4 billion.

The domestic side of the economy remained much weaker. Investment in plant and equipment grew slowly despite the export boom, while private construction fell for the third year in a row. The depression in the real estate market cut Government land sales and caused a marked reduction in Government revenues. Poor investment performance reflected political uncertainty over the scheduled transfer of control over Hong Kong to the People's Republic of China (PRC) in 1997. Widespread concern over the long-run political and economic outlook prompted massive capital flight from Hong Kong in 1982/83. This drove down the value of the Hong Kong dollar 32 percent against the U.S. dollar between June 1982 and October 1983, generating serious inflation.

At that time, the Government pegged the exchange rate at 7.8 Hong Kong dollars to one U.S. dollar. The new currency arrangement helped produce a marked drop in consumer price inflation in 1984. Ironically, the depreciation in the Hong Kong dollar prior to the dollar peg seemed to help boost Hong Kong's 1984 exports through improved competitiveness. As the U.S. dollar continued to appreciate against major currencies during

the year, some of this competitive edge began to erode. Meanwhile, the capital outflow continued at a somewhat reduced pace, roughly estimated at \$1 billion in 1984.

Sino-British Agreement on the Future of Hong Kong

Some of the uncertainty surrounding Hong Kong's political future was removed in September, when British and PRC representatives signed a joint declaration spelling out Hong Kong's status after the PRC takes control. According to the agreement, Hong Kong will become a "special administrative region" of the PRC in 1997, with assurances that its economic and legal system will be retained for 50 years. The local Government is to retain power to make local laws and to determine economic and trade policies. Hong Kong will remain a free port, with a convertible currency and free movement of capital and free travel in and out of the region.

Although many retain doubts about the permanence of the institutions spelled out in the agreement, the fact an agreement was reached provided some reassurance. In addition, recent economic reforms in the PRC raise hopes that the PRC will adopt a pragmatic, noninterventionist policy toward Hong Kong.

Yen-Dollar Agreement Produces Unforeseen Results

Following 6 months of negotiations between the United States and Japan (November 1983–April 1984), the Japanese Government agreed to a number of U.S.-backed measures. These were aimed at liberalizing Japanese financial markets, easing the flow of capital into and out of Japan, and "internationalizing" the yen by increasing its use as a reserve currency and means of payment in international trade. The changes were intended to boost demand for the yen and help it appreciate against the dollar, and ultimately reduce the U.S.–Japanese bilateral trade imbalance. Aside from helping raise the return to Japanese small savers by lifting interest rate ceilings on household savings accounts, the main effect of the changes so far has been to facilitate the outflow of capital from Japan to the United States, causing further depreciation in the yen and

Economic and agricultural indicators for East Asia, 1984 1/

| Indicator | Units | Japan | South Korea | Taiwan | Hong Kong |
|---|--------------------|--------|-------------|--------|-----------|
| GDP per person | US\$ | 9,651 | 1,907 | 3,003 | 5,550 |
| Average real GDP growth: | | | | | |
| 1970-73 | Percent | 7.1 | 9.0 | 12.6 | 8.2 |
| 1974-80 | per year | 4.1 | 7.3 | 8.1 | 11.1 |
| 1981-84 | | 3.1 | 7.3 | 6.7 | 11.7 |
| Exports as percent of GDP | Percent | 14.7 | 36.7 | 53.8 | 86.2 |
| Population/cultivated ha | Persons per ha | 24.9 | 18.5 | 21.3 | 539.5 |
| Agriculture as percent of GDP | Percent | 4.0 2/ | 14.2 | 6.2 | .7 |
| Agricultural production growth, 1970-83 | Percent per year | 0 | 3.6 | 1.4 | NA |
| U.S. agricultural exports per capita | U.S. \$ per capita | 58 | 45 | 75 | 74 |
| Foreign exchange reserves | US\$ billion | 26.3 | 7.7 | 19.6 | 45.0 2/ |
| Change in reserves | US\$ billion | +1.8 | +.7 | +5.9 | NA |
| Foreign debt | US\$ billion | 0 | 43.1 | 6.7 | NA |
| Debt service ratio 3/ | Percent | 0 | 19 | 7 | NA |

NA = Not available.

1/ Data apply to 1984 unless otherwise indicated. 2/ 1983 data. 3/ Interest and principal repayment as percentage of goods and services exports.

East Asia: Total exports and imports and trade with United States

| Country | Exports 1/ | | | Imports 2/ | | | Trade balance 3/ | | |
|-----------------|---|-------|-------|---|-------|-------|--|-------|-------|
| | 1982 | 1983 | 1984 | 1982 | 1983 | 1984 | 1982 | 1983 | 1984 |
| Billion dollars | | | | | | | | | |
| Japan | 137.7 | 145.5 | 170.1 | 119.6 | 113.8 | 136.5 | +18.1 | +31.6 | +35.0 |
| South Korea | 21.9 | 24.4 | 29.2 | 24.3 | 26.2 | 30.6 | -2.6 | -1.8 | -1.1 |
| Taiwan | 22.2 | 25.1 | 30.5 | 20.4 | 20.3 | 22.0 | +3.3 | +4.8 | +8.5 |
| Hong Kong 4/ | 21.0 | 22.0 | 28.4 | 23.5 | 24.0 | 28.6 | -2.6 | -1.9 | -.2 |
| Total | 202.8 | 217.0 | 258.2 | 187.8 | 184.3 | 217.7 | +16.2 | +32.7 | +42.2 |
| Country | Exports to United States as percent of total exports 1/ | | | Imports from United States as percent of total imports 2/ | | | Trade balance with United States 5/ | | |
| | 1982 | 1983 | 1984 | 1982 | 1983 | 1984 | 1982 | 1983 | 1984 |
| Percent | | | | | | | | | |
| Billion dollars | | | | | | | | | |
| Japan | 26.4 | 29.5 | 35.2 | 18.4 | 19.6 | 19.7 | +12.4 | +18.2 | +33.1 |
| South Korea | 28.8 | 33.7 | 35.8 | 24.6 | 23.8 | 22.4 | +.3 | +2.0 | +3.6 |
| Taiwan | 39.5 | 45.1 | 48.8 | 22.4 | 22.9 | 23.0 | +4.2 | +6.7 | +9.8 |
| Hong Kong 4/ | 28.9 | 32.2 | 33.2 | 10.8 | 11.0 | 10.9 | +3.5 | +4.4 | +6.3 |
| Total | 28.4 | 32.0 | 36.7 | 18.6 | 19.4 | 19.2 | +12.9 | +31.3 | +52.8 |

1/ Net of shipping costs (free on board or f.o.b. basis). 2/ Includes shipping and insurance costs (cost, insurance, and freight or c.i.f. basis). 3/ Difference between value of exports and imports, both on f.o.b. basis. 4/ Includes domestic exports and re-exports. 5/ Difference between exports to United States on f.o.b. basis and imports from United States on c.i.f. basis.

reducing the competitive position of U.S. products in Japanese markets.

Slower Growth Seen for 1985

Most private forecasters foresee a marked slowdown in U.S. economic growth in 1985, to between 3.5 and 4.5 percent compared with the 6.9-percent growth achieved in 1984. No offsetting acceleration of growth in Western Europe is seen. Taken

East Asia: Selected economic indicators

| | 1983 | 1984 | 1985 forecast 1/ |
|------------------------------|-------------------------------------|---------|------------------------|
| Gross domestic product (GDP) | Billion dollars | | |
| Japan | 1,158.8 | 1,245.7 | 1,493.1 |
| South Korea | 76.8 | 81.8 | 90.3 |
| Taiwan | 49.8 | 56.6 | 62.1 |
| Hong Kong | 22.6 | 27.8 | 31.8 |
| GDP growth | Percent | | |
| Japan | 2.9 | 5.6 | 3.8 |
| South Korea | 9.5 | 7.9 | 7.0 |
| Taiwan | 7.3 | 10.9 | 7.2 |
| Hong Kong | 5.9 | 9.6 | 6.9 |
| Midyear population | Million | | |
| Japan | 118.9 | 119.6 | 120.6 |
| South Korea | 39.9 | 40.6 | 41.2 |
| Taiwan | 18.6 | 18.8 | 19.1 |
| Hong Kong | 5.4 | 5.6 | 5.8 |
| Exchange rate 2/ | Local currency units to U.S. dollar | | |
| Japan (yen) | 237.5 | 237.5 | 246.6 |
| South Korea (won) | 778.0 | 806.0 | 821.8 |
| Taiwan (New Taiwan \$) | 40.1 | 39.6 | 38.3 |
| Hong Kong (Hong Kong \$) | 7.2 | 7.8 | 7.9 |
| Consumer price inflation | Percent | | |
| Japan | 1.5 | 2.2 | 3.6 |
| South Korea | 3.4 | 2.3 | 4.1 |
| Taiwan | 1.8 | .2 | 3.4 |
| Hong Kong | 9.9 | 8.1 | 6.7 |

1/ Exchange rate forecast based on Project LINK: World Outlook, March 4, 1985. Philadelphia: Project LINK, University of Pennsylvania. Other forecasts based on Wharton World Economic Outlook, December 1984, Philadelphia: Wharton Econometric Forecasting Associates. 2/ Period average.

together, these forecasts imply a significant slackening in the growth of world demand for East Asia's exports, and a consequent reduction in overall economic growth in the region. The impact of slower export sales on regional economic growth will be mitigated in the likely event that international petroleum prices continue to soften during the year.

On the other hand, U.S. balance of payments deficits will probably worsen as the United States nears full employment and real interest rates are bid up. These deficits will likely lead to increased pressure for U.S. restrictions on imports from East Asia, including textiles, steel, electronic products, and other manufactured goods. Such trade restrictions could significantly slow the growth of East Asian exports.

Real income growth in Japan is projected to decline to 3.8 percent in 1985, as export growth slows to around 7 percent. Japan's current account surplus should rise to \$41 billion, prompting some appreciation in the yen by yearend. Government monetary and fiscal policy will continue the relatively restrictive stance maintained in 1984.

Korea's real income growth should slow to around 7 percent. Export growth will slow to around 14 percent, but the Government will partially offset this through somewhat looser monetary and fiscal policies. As a result, the inflation rate will rise to slightly above 4 percent. The current-account deficit will remain fairly stable, implying an increase in foreign debt to \$45.1 billion. The debt-service ratio will remain roughly constant.

Taiwan's growth will fall considerably in 1985 to around 7.2 percent, reflecting the island's heavy dependence on exports to the U.S. market. Tariff reductions on some items and the phaseout of the import tariff surcharge will boost import growth substantially, as will increased Government spending aimed at offsetting the export slowdown. The trade surplus is expected to decline by a third to around \$6.3 billion. Inflation will increase to a modest 3.4 percent in response to Government stimulus.

Hong Kong's exports will slow in 1985, partly in response to the new U.S. country-of-origin regulations affecting its knitwear exports. Income growth should

decline to about 6.9 percent. Capital investment should pick up slightly because of somewhat greater certainty about the political outlook. [Donald A. Sillers (202) 447-8229]

U.S. Agricultural Trade With East Asia

East Asia Becomes Leading U.S. Regional Agricultural Market

U.S. agricultural exports to East Asia increased 15 percent to \$10.6 billion in fiscal 1984, surpassing the value of shipments to Western Europe--the European Community (EC) and other Western Europe--for the first time. Most of the increase is attributed to higher commodity prices. Total volume was up only 2 percent. Exports to the region are forecast to drop to \$9.6 billion in fiscal 1985 because of weaker commodity prices, slower economic growth in the region, and increased competition from other exporters.

East Asia is forecast to take large shares of U.S. commodity exports during 1985: more than two-thirds of U.S. beef and pork shipments; about two-thirds of the cattle hides; more than half the raw cotton; and from one-third to two-fifths the feed grain, soybeans, and fruit and fruit preparations.

U.S. agricultural exports to East Asia
by country, fiscal years 1981-85 forecast

| Country | 1981 | 1982 | 1983 | 1984 | 1985 fore- cast |
|-----------------|---------|--------|--------|--------|-----------------------|
| Million dollars | | | | | |
| Japan | 6,739 | 5,735 | 5,888 | 6,935 | 6,220 |
| South Korea | 2,136 | 1,607 | 1,713 | 1,816 | 1,514 |
| Taiwan | 1,105 | 1,166 | 1,237 | 1,409 | 1,418 |
| Hong Kong | 388 | 403 | 344 | 407 | 401 |
| East Asia | 10,368 | 8,911 | 9,182 | 10,567 | 9,553 |
| World | 43,780 | 39,090 | 34,770 | 38,000 | 34,500 |
| U.S. share to: | Percent | | | | |
| Japan | 15.4 | 14.7 | 16.9 | 18.3 | 18.0 |
| South Korea | 4.9 | 4.1 | 4.9 | 4.8 | 4.4 |
| Taiwan | 2.5 | 3.0 | 3.6 | 3.7 | 4.1 |
| Hong Kong | .9 | 1.0 | 1.0 | 1.1 | 1.2 |
| East Asia | 23.7 | 22.8 | 26.4 | 27.8 | 27.7 |

But the East Asian market has not grown rapidly as a market for U.S. agricultural products in recent years. The value of U.S. farm exports to the region in FY 84 was scarcely above the 1981 level. Furthermore, despite improved economic performance last year, the region's imports of soybeans, coarse grain and beef declined, while poultry meat rose only slightly from the year before. Only wheat, pork, cotton, and cattle hides showed significant import growth in 1984.

The emergence of East Asia as the top U.S. regional market has not resulted from sustained growth in its imports but rather from reduced U.S. sales in other markets. The EC's Common Agricultural Policy has encouraged expanded European farm output since the late 1970's, causing the EC to shrink as a U.S. market and to become a leading exporter of dairy products, sugar, poultry meat, eggs, beef and veal, wheat, and wheat flour, and a net exporter of coarse grain for the first time in 1984/85. During this time, East Asia held its own as a U.S. market and thus emerged as the leading regional market in FY 84. East Asia is forecast to remain the top regional market in FY 85.

East Asia bought 40 percent of its agricultural imports from the United States, down slightly from the 1983 share. Other major suppliers included Australia, Canada, the PRC, Thailand, and Argentina. The PRC, an important supplier of farm products to Hong Kong and Japan for some time, became even more important in the region by stepping up coarse grain sales to South Korea and Japan and cotton to Hong Kong, Japan, and South Korea.

U.S. share performance in various of the region's commodity markets was mixed. The U.S. share increased from 1983 for beef, corn, sorghum, and cotton; declined for wheat, pork, and poultry meat; and remained about the same for soybeans and cattle hides. Despite much discussion about the adverse effects of U.S. farm policy and a strong dollar on U.S. competitiveness, there is little evidence yet of fundamental change in the competitiveness of U.S. farm commodities in the East Asian market.

SOURCE: Bureau of the Census, U.S. Department of Commerce; ERS forecasts.

U.S. agricultural exports to East Asia and share of
total to East Asia by commodity, fiscal years 1983-1985 forecast

| Commodity groups | East Asia | | | Share of U.S. total to East Asia | | |
|-------------------------------|-------------------------|--------|-----------------------|----------------------------------|------|-----------------------|
| | 1983 | 1984 | 1985 fore- cast | 1983 | 1984 | 1985 fore- cast |
| | --- Million dollars --- | | | ----- Percent ----- | | |
| Animal and animal products | 1,299 | 1,514 | 1,600 | 35 | 36 | 39 |
| Beef (fresh, chilled, frozen) | 286 | 327 | 385 | 74 | 76 | 67 |
| Pork | 110 | 85 | 86 | 73 | 71 | 74 |
| Poultry meat | 115 | 120 | 113 | 43 | 45 | 39 |
| Tallow; inedible | 68 | 82 | 98 | 13 | 13 | 17 |
| Cattle hides; whole | 450 | 655 | 706 | 63 | 65 | 62 |
| Other animal products | 270 | 245 | 213 | 16 | 14 | 15 |
| Grains and feeds | 3,891 | 4,478 | 3,850 | 26 | 26 | 25 |
| Wheat and products | 1,004 | 982 | 955 | 16 | 14 | 16 |
| Rice | 62 | 1 | 0 | 7 | 0 | 0 |
| Coarse grains | 2,623 | 3,241 | 2,658 | 40 | 40 | 36 |
| Feeds & fodders | 180 | 227 | 210 | 15 | 19 | 13 |
| Fruits and preparations | 420 | 428 | 439 | 31 | 34 | 34 |
| Nuts and preparations | 69 | 80 | 86 | 14 | 15 | 14 |
| Vegetables and preparations | 170 | 186 | 193 | 17 | 19 | 19 |
| Oilseeds and products | 1,742 | 2,017 | 1,530 | 20 | 23 | 21 |
| Oilcake and meal | 25 | 17 | 8 | 2 | 1 | 1 |
| Soybeans | 1,633 | 1,911 | 1,467 | 28 | 33 | 32 |
| Vegetable oils | 59 | 63 | 36 | 7 | 6 | 4 |
| Tobacco, unmanufactured | 375 | 394 | 371 | 25 | 27 | 23 |
| Cotton, excl. linters | 985 | 1,264 | 1,285 | 59 | 53 | 61 |
| Other | 231 | 206 | 199 | 22 | 16 | 20 |
| Total | 9,182 | 10,567 | 9,553 | 26 | 28 | 28 |

SOURCES: Bureau of the Census, U.S. Department of Commerce; and ERS forecasts.

Commodity Highlights

Coarse Grain

The region's coarse grain imports declined slightly in 1984. The slack came from herd liquidation in the South Korean and Taiwanese hog sectors, the availability of competitively priced Australian feed wheat, and some reduction in domestic stocks. The U.S. share of the region's coarse grain imports increased marginally from 78 percent in 1983 to 80 percent in 1984.

The region's overall imports of coarse grain are likely to show little or no increase in 1985. Gains in sorghum and barley will offset declines in corn. Sales may accelerate in the second half after grain inventory and hog

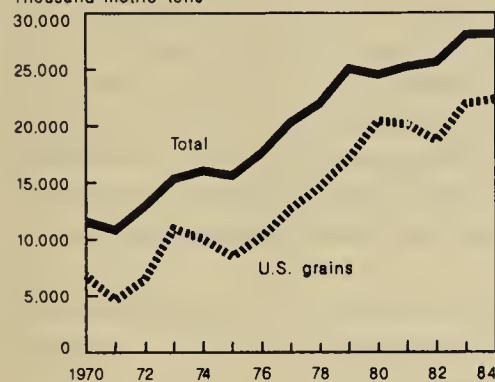
sector adjustments are complete, but lower economic growth rates and availability of competitively priced substitutes suggest a flat market in 1985.

Corn: With the 1984 price of corn up more sharply than other feed grains, corn use declined because of substitution of more cheaply priced sorghum and feed wheat. East Asian imports of corn were down 9 percent. Despite increased competition from the PRC, particularly in the Japanese and South Korean markets, the U.S. share of the region's imports increased from 91 percent in 1983 to 94 percent in 1984. Supplies from South Africa, normally over 1 million tons, were negligible and those from Thailand were substantially off from recent years.

East Asia Commodity Imports

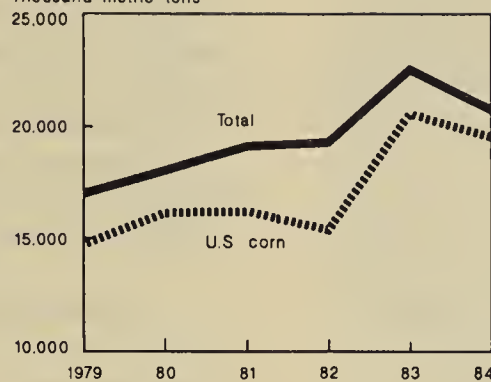
Coarse Grains Corn, Sorghum, and Barley

Thousand metric tons



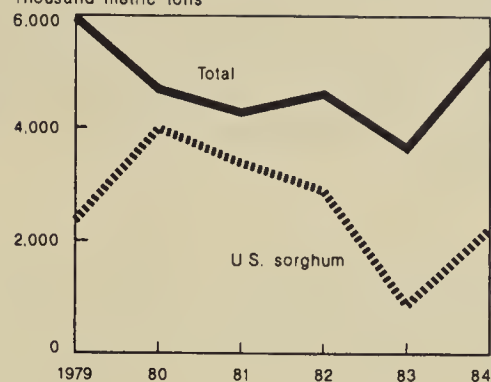
Corn

Thousand metric tons



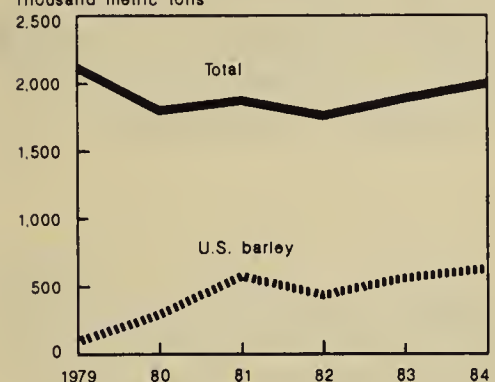
Sorghum

Thousand metric tons



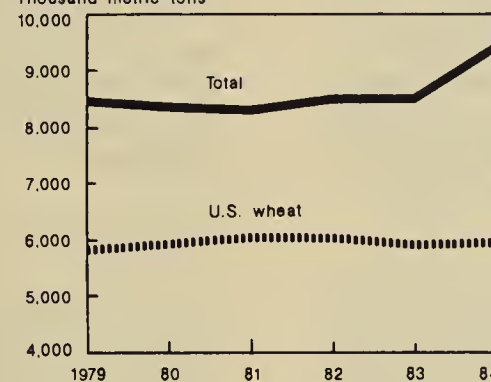
Barley

Thousand metric tons



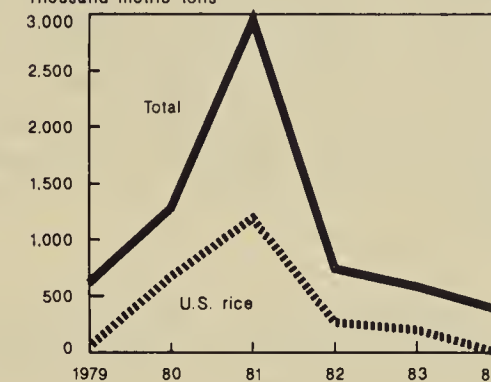
Wheat

Thousand metric tons



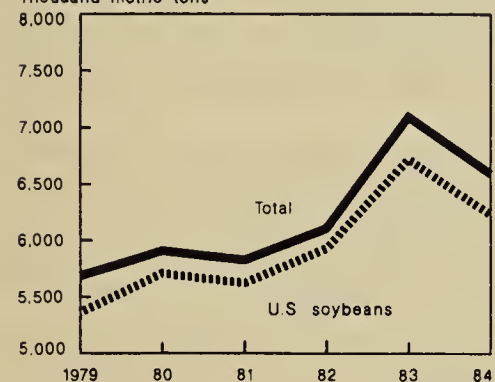
Rice

Thousand metric tons



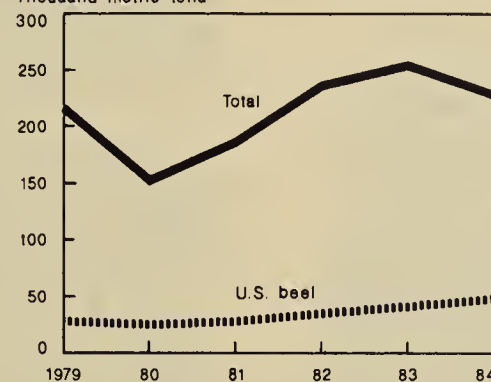
Soybeans

Thousand metric tons



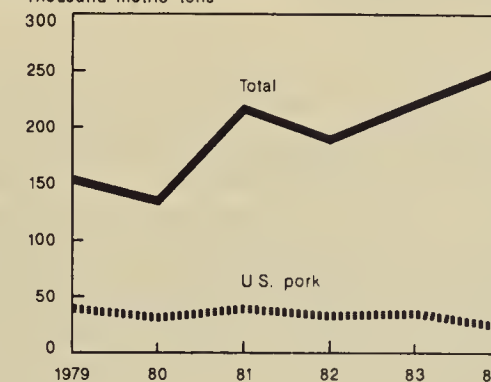
Beef

Thousand metric tons



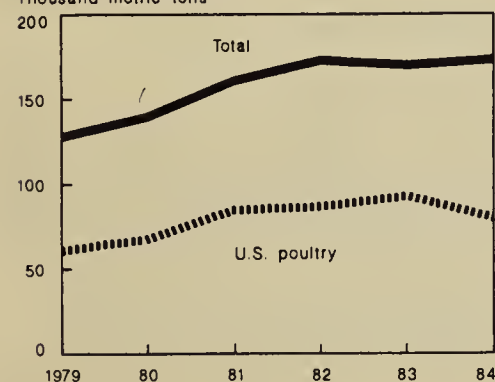
Pork

Thousand metric tons



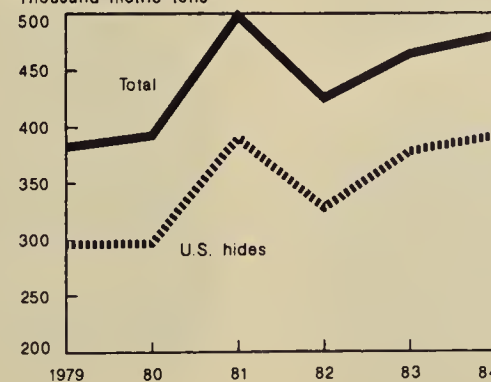
Poultry

Thousand metric tons



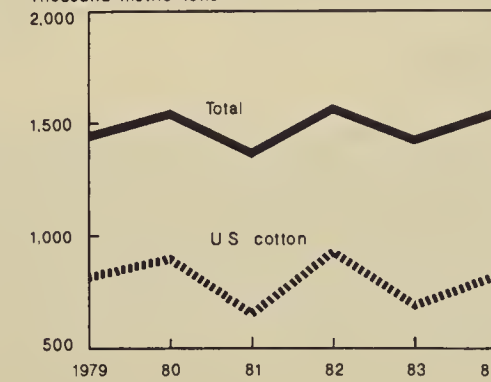
Cattle Hides

Thousand metric tons



Cotton

Thousand metric tons



¹The data are for calendar years and are aggregated from annual issues of: Government of Japan, Ministry of Finance, *Japan Exports and Imports: Commodity by Country*. Hong Kong Census and Statistics Department, *Hong Kong Trade Statistics*. Republic of Korea, Office of Customs Administration, *Statistical Yearbook of Foreign Trade*. Republic of China, Inspectorate General of Customs, *The Trade of China*.

Declining corn prices in 1984/85 will give a relative boost to East Asian corn demand. However, the United States will likely lose share in this market as the PRC increases 1984/85 shipments of favorably priced and good-quality corn to both Japan and South Korea. Imports from South Africa will remain minimal while some increase is expected from Thailand.

Sorghum: The region's sorghum imports jumped 48 percent in 1984 because of a more favorable sorghum/corn price relationship. The U.S. share of the region's imports improved in 1984 to 41 percent from 24 percent the year before. Imports from Australia hit a record 1.5 million tons after a drought-reduced 200,000 tons the year before. Supplies from Argentina, however, were down to 1.8 million tons, but still far above the levels of 1980-82, when Argentina dropped out of the East Asian market to supply the more lucrative U.S.-embargoed Soviet market.

Price forecasts and export sales data suggest that sorghum will probably lose some ground to corn by the end of 1985. However, U.S. sorghum exports to East Asia for the first half of 1984/85 were 75 percent more than the year before.

Barley: The region's barley imports increased 6 percent to 2.0 million tons in 1984. About 80 percent of the market is in Japan and the remainder in Taiwan. South Korea is self-sufficient in barley production. The U.S. share of East Asia's barley imports was unchanged in 1984 at about 31 percent, with the other two-thirds supplied by Canada and Australia. The region's barley imports are forecast to increase about 5 percent, with most of the growth from Taiwan.

Soybeans

The region's 1984 soybean imports dropped 8 percent to 6.5 million tons. This came after dramatic gains the year before when purchases accelerated in anticipation of rising prices after the U.S. PIK program and drought. The United States, which dominates this market with more than a 90-percent share, lost some ground to the PRC, which mainly supplies a food-quality bean to the Japanese market.

About 75 percent of soybean consumption in the region is crushed for meal with the remainder used for the manufacture of traditional soy-based foods. Soybean meal, with some competition from rapeseed and fish meals, is the leading protein supplement used in the region's livestock feeds. Imports of soyoil and meal tend to be small relative to consumption, and vary with imbalances in the oil and meal markets arising from demand shifts and changes in the crushing margin.

The region is forecast to import about the same amount of soybeans in 1984/85 as the year before, following the no-growth pattern of coarse grain. U.S. sales for September 1984-March 1985 were running about 10 percent behind a year earlier. Competition is expected to intensify during the remainder of 1985, particularly in the Japanese market from Brazil and Argentina, nontraditional suppliers.

Meats

The region imports substantial amounts of beef, pork, chicken, and lamb and mutton to supplement domestic supplies. East Asian imports of ruminant meats are important relative to regional consumption because of limited indigenous forage supplies. Japan is the region's largest importer of both beef and mutton, most of which originates in Oceania.

Since the region's poultry meat and pork industries are relatively efficient, imports of these items represent a fairly small percentage of total consumption. Even so, the region is an important player in the world trade of these items, taking about 30 percent of world pork trade and 18 percent of world poultry meat trade.

Beef: The region's beef imports dropped 10 percent in 1984 because of sharply curtailed imports by South Korea. Nevertheless, the U.S. share increased from 16 percent in 1983 to 21 percent in 1984 on the strength of an improved performance in the Japanese market. This was due to favorable prices and a 22-percent increase in Japan's fiscal year (JFY) 1984 (April 1984-March 1985) target for high-quality beef imports under special and general quotas.

South Korea's beef imports dropped as the Government restricted imports in the second

half of the year to bolster weak domestic prices. Hong Kong and Taiwan's 1984 imports were stable at 28,000 and 24,000 tons, respectively.

The region's beef imports are forecast to hold steady in 1985 with an expected increase in Japan offsetting another sharp decline in South Korea. Australia will continue to dominate these markets, while the U.S. share should continue to gain because of the high-quality beef provision in the 1984 U.S.-Japan understanding on Japanese beef imports.

Pork: East Asia's pork imports reached a record 252,000 tons in 1984. Japan and Hong Kong are the only countries importing significant quantities. South Korea is practically self-sufficient and Taiwan exports substantial amounts, mainly to Japan.

The U.S. share of East Asia's imports dropped from 16 percent in 1983 to 10 percent last year because of increased competition from Denmark and Taiwan particularly in the Japanese market. Denmark regained a 39-percent share of Japanese imports after a ban on its pork, imposed initially because of hoof-and-mouth disease, was lifted in September 1983. Hong Kong's pork imports grew only marginally with the PRC, which remained as usual, its leading supplier.

The region's pork imports are unlikely to grow in 1985. The reason is that Japan's pork production, after showing no growth in 1984, is expected to keep pace with consumption.

Poultry meat: As with pork, Japan and Hong Kong are the only countries in the region that import significant quantities of poultry meat. The region's imports amounted to about 173,000 tons in 1984, about the same as in the previous 2 years. The U.S. share of total imports fell to 46 percent from 55 percent in 1983. Principal competitors in the region were Thailand (18 percent) and the PRC (15 percent). Brazil also established itself as a major supplier to the Japanese market in 1984.

Import prospects for 1985 are for little or no increase over the 1984 level. Japanese poultry meat production, as with pork, is expected to keep pace with consumption, implying little or no growth in import demand.

Food Grains

Prospects for increased imports of food grains by the region are not favorable. Per capita consumption of rice and wheat will either stabilize or decline over the next 10 years in most of the region's countries. High price policies for rice aimed at increasing the region's self-sufficiency will reduce dependence on rice imports and increase the likelihood of exportable surpluses.

Rice: The region imported about 525,000 tons of rice in the marketing year 1983/84 (December-November), down from 600,000 tons the year before. With South Korea achieving self-sufficiency in rice production in 1983/84, the United States virtually lost its rice market in East Asia except for small amounts to Japan. Hong Kong is the region's major importer, with more than 80 percent of its imports coming from Thailand and the PRC.

All countries in East Asia, except Hong Kong, exported rice in 1983/84: Japan and Taiwan shipped 605,000 tons subsidized under surplus disposal programs; and South Korea sent 135,000 tons to Japan in the second half of 1984 to repay a 15-year old rice loan and to replenish precariously low Japanese stocks.

The region's rice imports are forecast to decline 30 percent in 1984/85 to 365,000 tons. Its rice exports will also decline, reducing its net export position to about 240,000 tons.

Wheat and Wheat Flour: East Asia's wheat imports hit a record 9.4 million tons in 1984, but much of the increase was due to large imports of feed-quality wheat by South Korea. Between 1976 and 1983, the region's imports were between 8 and 8.5 million tons, reflecting relatively stable consumption and little competition from indigenous production, except in Japan.

U.S. share of the region's wheat imports averaged 71 percent in 1976-83, but dropped to 63 percent in 1984. Australia increased its share from 12 percent in 1976-83 to 18 percent last year because of increased sales of feed wheat to South Korea. Despite the lower U.S. share last year, the United States in prior years has maintained a more stable share in the East Asian market than in the global wheat market.

Hong Kong is the only country in the region that imports significant quantities of wheat flour. Its import demand grew from about 30,000 tons in 1970 to 83,000 tons in 1984, with Canada and Japan its principal suppliers. South Korea's steady expansion in flour milling has all but eliminated its need to import flour.

The region's wheat imports are forecast to decline in 1985, because of reduced imports of Australian feed wheat. The Australian Wheat Board reported in early April that feed wheat stocks were practically depleted. U.S. wheat exports for June 1984–March 1985 are about even with levels for the previous year. Growth in hard wheat sales have offset declines in soft varieties.

Cotton

East Asia is the world's most important regional market for cotton because of its competitive position in yarn spinning. This position, however, is becoming increasingly challenged by countries in South and Southeast Asia. Last year, the region's raw cotton imports reached a record 1.54 million tons, 35 percent of world trade. Yarn spinning and textile production expanded to meet growing demand in domestic and overseas markets, principally the United States.

The U.S. share of the East Asian market increased from 49 percent in 1983 to 53 percent in 1984 because of favorable prices and limited competition from traditional suppliers such as the Soviet Union and Pakistan. The PRC emerged as an important competitor, supplying about 10 percent of the market, with Japan and Hong Kong its top Asian markets.

The region's cotton imports are forecast to drop as consumption stabilizes and stocks are drawn down. The United States is expected to hold its own in all the country markets in the region except Hong Kong during the current marketing year (August–July).

Cattle Hides

East Asia imported 480,000 tons of cattle and equine hides in 1984, about 35 percent of world trade. Import growth slowed in part because of a 33-percent jump in prices. About

50 percent of the regional total was marketed in Japan, where domestic hide supplies are severely limited. Most manufactured Japanese leather goods are marketed domestically, while the other East Asian countries are very dependent on export markets.

The U.S. share of the region's cattle hide imports held steady at 81 percent last year, with minor competition from Australia. Import demand for hides will likely remain stable in 1985 because of slower economic growth in these countries and in their major overseas market, the United States. [William T. Coyle (202) 447-8229]

Hong Kong

Vigorous economic growth in Hong Kong stimulated a modest volume increase in agricultural imports in 1984. With higher prices for many commodities, the value of these imports increased an estimated 11 percent to over \$4 billion, making this small city-state of 5.5 million people a larger overall agricultural import market than Taiwan. For the United States, however, Hong Kong is the smallest East Asian market because of stiff competition from suppliers like the PRC and the EC. The value of U.S. agricultural exports to Hong Kong increased 18 percent to \$407 million in FY 84 and is forecast to decline slightly in FY 85 as weaker prices offset volume gains.

Cotton Imports Up

Encouraged by strong demand for its textile exports, Hong Kong's raw cotton imports increased an estimated 17 percent in 1984 over 1983. The U.S. share recovered to 27 percent in 1984 from a low 14 percent the previous year. Relatively high U.S. cotton prices and aggressive marketing by the PRC prevented the United States from gaining a larger share. Total wheat imports fell slightly in 1984 to 121,000 tons. The U.S. share dropped to an estimated 85 percent from 93 percent last year, as imports of Canadian wheat increased. At the same time, imports of wheat flour rose with most of the imports coming from Japan. Rice imports, 371,000 tons in 1983, fell off slightly in 1984. Most of the rice was supplied by Thailand and the PRC. Hong Kong's imports of citrus fruit

U.S. agricultural exports
to Hong Kong

| Commodity groups | Fiscal years | | |
|---------------------------------|--------------|------|---------|
| | 1983 | 1984 | 1985(f) |
| Million dollars | | | |
| Animal & animal prods. | 54 | 63 | 65 |
| Beef | 5 | 6 | 6 |
| Pork | 1 | 1 | 1 |
| Poultry meat | 25 | 33 | 37 |
| Cattle hds; whl. | 5 | 2 | 3 |
| Other | 18 | 21 | 18 |
| Grains & feeds | 33 | 28 | 30 |
| Wheat & prods. | 19 | 18 | 19 |
| Feeds & fodder | 12 | 9 | 10 |
| Other | 2 | 1 | 1 |
| Fruits & preps. | 103 | 106 | 100 |
| Nuts & preps. | 4 | 3 | 4 |
| Vegetables & preps. | 30 | 31 | 30 |
| Oilseeds & prods. | 8 | 9 | 13 |
| Veg. oils & waxes | 7 | 9 | 13 |
| Other | 1 | 0 | 0 |
| Tobacco, unmanuf. | 10 | 20 | 21 |
| Cotton, excl. linters | 35 | 87 | 74 |
| Other | 67 | 60 | 64 |
| TOTAL | 344 | 407 | 401 |
| 1,000 tons | | | |
| Beef | 1 | 1 | 1 |
| Pork | 0 | 1 | -- |
| Poultry meat | 26 | 31 | 38 |
| Cattle hds; whl. (1,000 no.) | 206 | 60 | 75 |
| Wheat & prods. | 113 | 108 | 120 |
| Veg. oil & waxes | 7 | 8 | 12 |
| Tobacco, unmanuf. | 2 | 3 | 4 |
| Cotton, excl. linters | 27 | 65 | 50 |

-- Less than 500 tons.

SOURCE: Bureau of the Census, U.S. Department of Commerce; ERS forecasts.

declined an estimated 18 percent in 1984, primarily from reduced U.S. supplies of fresh oranges. Tobacco imports increased slightly and the U.S. share improved to an estimated 22 percent from 13 percent in 1983. The United States continued to hold the dominant share (79 percent), worth an estimated \$134 million, of Hong Kong's cigarette imports, but future growth in this market is clouded by

Hong Kong's imports of principal
agricultural commodities and the U.S. share

| Commodity | Volume | | U.S. share | |
|----------------------------|--------|------------|------------|------------|
| | 1983 | 1984 1/ | 1983 | 1984 1/ |
| | | 1,000 tons | Percent | |
| Corn | 312 | 221 | -- | -- |
| Sorghum | 6 | 4 | -- | -- |
| Rice | 371 | 360 | -- | -- |
| Soybeans | 24 | 26 | -- | -- |
| Raw cotton | 187 | 218 | 14 | 27 |
| Wheat | 126 | 121 | 93 | 85 |
| Wheat flour | 66 | 83 | -- | -- |
| Sugar | 144 | 133 | -- | -- |
| Coffee beans | 12 | 16 | 3 | 2 |
| Pork | 55 | 55 | -- | -- |
| Beef | 27 | 28 | 4 | 4 |
| Broilers | 46 | 51 | 51 | 54 |
| Whole cattle hides | 8 | 5 | 53 | 26 |
| Tobacco | 13 | 15 | 13 | 22 |
| Citrus fruit | 176 | 144 | 81 | 85 |
| Bananas | 24 | 29 | -- | -- |
| Million dollars | | | | |
| Total agricultural imports | 3,590 | 4,092 | 16 | N/A |

-- None or negligible.

1/ Estimates for calendar year.

SOURCE: Hong Kong Census and Statistics Department, Hong Kong Trade Statistics, 1983 December and 1984 November issues.

heightened antismoking sentiment and a possible future ban on cigarette commercials. In addition, smoking continues to be less popular, as evidenced by a further decline, to 18.7 percent, in the percentage of Hong Kong's smoking population.

Livestock Sector Recovers

Because Hong Kong has such a small agricultural base, local production is geared to complement rather than compete with major food imports. Hong Kong's limited livestock and poultry industries expanded some in 1984. Pork output increased slightly, and production of poultry meat expanded after the public's adverse reaction to the use of synthetic hormones in poultry curtailed consumption in 1983.

Helped by a more stable dollar, imports of meat and dairy products continued to increase in 1984. Poultry meat imports, which declined in 1983, revived from the effects of the

hormone scare. Hong Kong's large tourist trade and consumers' changing tastes for high-quality food has created strong demand for livestock and dairy products, which is expected to continue. The major suppliers of red meat and dairy products include the PRC, Australia, New Zealand, and Brazil. The PRC is the United States' largest competitor in Hong Kong's market for poultry and poultry products.

Textile Sector Improves

Encouraged by growth in export-market economies, especially in the United States, Hong Kong's textile sector continued to improve in 1984. However, activity slowed slightly during the last quarter of the year after the United States announced new country-of-origin rules in August. Imports of raw cotton surpassed last year's level because of renewed activity in the textile sector and increased demand for reexports, particularly to Indonesia. Taking advantage of its huge cotton crop and nearness to Hong Kong, the PRC emerged as the leading supplier of raw cotton, providing close to half. At the same time, imports from traditional suppliers fell because of a poor crop in the USSR and cotton export bans in India and Pakistan.

In contrast to last year, trade in textiles (yarns, fabrics, garments) was very active during the 1983/84 marketing year (August-July). Hong Kong spinners faced keen competition from imported cotton yarns (especially carded yarns) from the PRC, Taiwan, and South Korea, but some relief came in April 1984 when the PRC imposed a unified authorization system to control its cotton yarn exports to Hong Kong.

Despite increased competition from imported yarns, conditions in the spinning industry were generally favorable, and most mills were operating close to full capacity. The introduction of new labor-saving machinery and the phasing in of more coal-fired plants helped to keep labor and electricity costs stable, despite still high inflation and increases in wage rates during the year. At the same time, Hong Kong's textile sector had to face tighter restrictions on its exports to the United States, a major market. In January 1984, the United States placed certain cotton fabrics (sheeting,

printcloth, and duck), previously regulated under an export authorization system, under quota control. Effective October 31, 1984, the United States imposed new country-of-origin rules designed to hinder evasion of its textile quotas. The new rules require garments that are substantially produced in one country to come under that country's quota. Thus, garments made from knitted panels manufactured in the PRC and assembled and finished in Hong Kong will now fall under the PRC's quota and not the larger Hong Kong quota. To survive, the knitwear industry must consider replacing the cheaper human labor supplied by PRC textile workers with expensive knitting machines.

Because of pessimism over these tighter restrictions on exports and projected lower growth in industrialized economies, total consumption of cotton is expected to decline in the 1984/85 marketing year. Thus, imports of raw cotton are likely to decline, although reexport demand is expected to remain strong. The U.S. share of Hong Kong's cotton imports will be squeezed by continued competition from the PRC and a possible recovery in imports from the USSR and Pakistan.

The value of U.S. agricultural exports to Hong Kong is forecast to decline slightly in FY 85. Lower commodity prices will offset some volume gains, and reduced cotton shipments are likely, given the uncertainty in Hong Kong's textile sector and keen competition from the PRC. U.S. imports of agricultural products from Hong Kong, primarily canned mushrooms, other prepared vegetables, and fish products, totaled \$62 million during calendar 1984, compared with \$38 million in 1983. [*Lois A. Caplan (202) 447-8860*]

Japan

Agricultural Output Expands

Led by a good rice harvest, Japan's total agricultural production expanded 6 percent in 1984, the best year since 1979. Pulse production recovered considerably from last year's downfall, despite a small decline in planted area, boosted by very favorable growing conditions. However, fruit output declined because of a substantially reduced mikan harvest and poor apple and cherry crops compared with last year. Livestock

Agricultural production in Japan

| Commodity | 1982 | 1983 | 1984 | 1984/83 |
|------------------------|---------------|--------|---------|---------|
| | 1,000 tons | | Percent | |
| Rice, paddy | 12,838 | 12,957 | 14,848 | 115 |
| Pork | 1,427 | 1,429 | 1,430 | 100 |
| Vegetables | 13,393 | 13,355 | 13,500 | 101 |
| Eggs | 2,057 | 2,085 | 2,111 | 101 |
| Milk | 6,750 | 7,036 | 7,140 | 101 |
| Poultry meat | 1,080 | 1,143 | 1,217 | 106 |
| Beef and veal | 481 | 495 | 535 | 108 |
| Citrus fruit | 3,625 | 3,624 | 2,726 | 75 |
| Tobacco | 139 | 137 | 135 | 100 |
| Indices of production | 1969-71 = 100 | | | |
| Crops | 89 | 89 | 94 | 106 |
| Livestock | 172 | 176 | 180 | 102 |
| Total agriculture | 98 | 98 | 103 | 105 |
| Per capita agriculture | 87 | 86 | 90 | 105 |

NOTE: Commodities shown are in order of importance in 1984 gross agricultural income and represent about 90 percent of total agricultural output.

SOURCES: Economic Research Service, USDA, World Indices of Agricultural Production, 1974-83 and Foreign Agricultural Service, USDA, Annual Situation Report for Japan.

production continued to expand in 1984, led by increased beef and broiler output.

Stimulated by real economic growth, consumption of livestock products and feed grains to support Japan's livestock industry expanded modestly in 1984. Imports of most livestock products were up as well. Beef and veal imports expanded because of the U.S.-Japan understanding on beef. Pork

imports jumped substantially, while poultry meat imports grew slightly. Total coarse grain imports climbed to over 20 million tons, with the United States providing a record amount of corn. In contrast, slack soymeal demand contributed to a decline in soybean and soymeal imports. The United States benefited from increased Japanese demand for raw cotton and reduced supplies in other cotton-producing countries, enjoying more than 50 percent of the market. But a strong U.S. dollar hurt sales of U.S. pork and poultry.

Unless last year's excellent growing conditions are repeated, production of rice, wheat, and barley is likely to decline in 1985. Production and consumption of livestock products are not expected to show much growth, holding down consumption and imports of coarse grain. The value of U.S. agricultural exports to Japan is forecast to decline in FY 85 because of slower projected growth in Japan's economy, weaker prices for many commodities, and increased competition from other suppliers.

Beef and Citrus Highlight U.S.-Japan Agricultural Trade Relations

Discussions over Japan's imports of beef and citrus dominated U.S.-Japan agricultural trade relations during 1984, culminating in an agreement to expand Japanese imports of grain-fed beef, oranges, and citrus juice over 4 years (see section on U.S.-Japan Beef and Citrus Accord). The United States also focused attention on gaining further access to Japan's market for forestry products, currently worth over \$1 billion to U.S. interests.

Continued on page 21

U.S.-Japan Beef and Citrus Accord Reached in August 1984

In August 1984, after protracted negotiations formally initiated in October 1982, Japan agreed to incrementally expand import quotas through March 1988 for high-quality (grain-fed) beef, fresh oranges, and orange juice. Japan also agreed to eliminate all import quota restrictions on grapefruit juice by 1986. Along with the market-opening measures on beef and citrus, Japan made a number of concessions on 10 of 13 relatively minor categories of agricultural

trade that have been restricted by import quotas and made tariff cuts on another 36 agricultural items. These actions resolved, at least temporarily, the long-standing bilateral dispute over Japan's restrictive trade policies on agricultural products, particularly those affecting beef and citrus.

The expansion of the beef, fresh orange, and orange juice quotas and the elimination of the grapefruit juice quota should add about \$35-40 million a year for each of the next 4

years to total U.S. agricultural exports to Japan. So by 1987, U.S. exports of these four products should approach \$450-500 million, or 5-6 percent of total U.S. agricultural exports to Japan.

U.S. exports to Japan of
beef, fresh oranges, and citrus juice

| Year | Beef, fresh, chilled and frozen | Fresh oranges | Orange juice | Grape- fruit juice | Total beef and cit- rus | Percent of total U.S. agricul- tural exports to Japan |
|------|---|------------------|-----------------|--------------------------|-------------------------------------|---|
| | Million dollars | | | | Percent | |
| 1971 | 1.5 | 1.6 | .2 | .2 | 3.5 | .33 |
| 1972 | 2.0 | 3.4 | .6 | .2 | 6.2 | .43 |
| 1973 | 35.0 | 4.3 | .4 | .4 | 40.1 | 1.34 |
| 1974 | 17.8 | 4.3 | 1.0 | .4 | 23.5 | .68 |
| 1975 | 26.3 | 7.7 | .6 | .5 | 35.1 | 1.14 |
| 1976 | 42.2 | 8.1 | 1.1 | .7 | 52.9 | 1.46 |
| 1977 | 52.4 | 7.6 | 1.6 | .9 | 62.5 | 1.62 |
| 1978 | 95.8 | 22.4 | 1.8 | 1.6 | 121.6 | 2.74 |
| 1979 | 129.1 | 29.0 | 2.4 | 2.6 | 163.1 | 3.10 |
| 1980 | 131.1 | 27.8 | 1.4 | 3.9 | 164.2 | 2.69 |
| 1981 | 155.9 | 44.4 | 1.2 | 7.8 | 209.3 | 3.19 |
| 1982 | 230.0 | 51.3 | 1.3 | 4.9 | 287.5 | 5.18 |
| 1983 | 251.3 | 51.9 | 1.7 | 4.9 | 309.8 | 4.96 |
| 1984 | 320.5 | 62.0 | 2.4 | 8.6 | 393.5 | 5.80 |

SOURCE: Bureau of the Census, U.S. Department of Commerce.

The concessions on the 10 minor quota items should also have a positive but modest effect on U.S. exports. These concessions will involve elimination of import quotas for individual products within broader quota categories and expansion of quotas for other products. Trade in these 10 categories of quota-restricted products amounted to \$225 million in 1983, with a U.S. share of \$59 million.

The tariff reductions, ranging from 10 percent to complete elimination, will affect trade valued at \$1.1 billion in 1983 and \$410 million to U.S. interests. On a trade weighted basis, the most significant tariff cuts for the United States were those on beef offals, pork, feathers and down, frozen sweet corn, and egg albumin.

Japan's concessions on high-quality beef were the most significant. Japan will expand its imports by 6,900 tons a year (17 percent annual rate of growth) during 1984-87, about

the same pace as the 3,500 tons a year (16 percent) during the previous agreement period (1979-83). According to a November 1984 agreement between Japan and Australia, the total beef quota will expand 9,000 tons a year (6 percent) during 1984-87, faster than 1,625 tons (4 percent) during 1979-83.

The relatively faster growth in high-quality beef imports, however, will guarantee that this component of Japan's total beef imports will continue to increase through 1987. Despite Japan's relatively generous concessions on high-quality beef, the new beef import levels will remain far short of the full potential that could be realized without quota restrictions.

Continued quota restrictions on imports of certain categories of beef (chilled and frozen), along with the 20-percent tariff cut on beef offals, may give further impetus to expanded Japanese imports of beef offals, a

Japanese beef and citrus
quotas, JFY 1979-87

| Year (April- March) | Beef | | Fresh oranges | | Juices | |
|---------------------------|-------------------|------------------------|---------------------------|-------|-------------------|-----------------------|
| | Total | High- quality 1/ | Off- sea- son 2/ | Total | Or- ange 3/ | Grape- fruit 3/ |
| | 1,000 metric tons | | | | | |
| 1979 | 134.5 | 16.8 | 22.5 | 45.0 | 3.0 | 1.0 |
| 1980 | 134.8 | 20.8 | 35.0 | 68.0 | 5.0 | 3.0 |
| 1981 | 126.8 | 24.1 | 38.5 | 72.5 | 5.5 | 4.0 |
| 1982 | 135.0 | 27.4 | 42.0 | 77.0 | 6.0 | 5.0 |
| 1983 | 141.0 | 30.8 | 45.5 | 82.0 | 6.5 | 6.0 |
| 1984 | 150.0 | 37.7 | 48.3 | 93.0 | 7.0 | |
| 1985 | 159.0 | 44.6 | | 104.0 | 7.5 | |
| 1986 | 168.0 | 51.5 | 4/ | 115.0 | 8.0 | 5/ |
| 1987 | 177.0 | 58.4 | | 126.0 | 8.5 | |

1/ From cattle no more than 30 months of age which have been fed for 100 days or more on a nutritionally balanced, high energy feed concentrate ration containing not less than 70 percent grain. Average feeding rate must be at least 9 kg. of total feed per day. 2/ June-August. 3/ 5:1 concentrate basis. 4/ The Government of Japan will allocate the import quota between annual and off-season quotas taking into consideration the demand and supply conditions in both countries. 5/ The Government of Japan will eliminate import quotas and licensing requirements on grapefruit juice on April 1, 1986. In the interim, import licenses will be issued to meet any amount of domestic demand.

category unrestricted by quota and very significant since 1975. ^{1/} U.S. exports of this commodity to Japan have grown from an annual average of \$19 million in 1975-77 to \$67 million in 1982-84. It's landed price in recent years has been higher than Australian beef. About 70 percent of the trade is diaphragm beef, which is reformed into steaks or used in Japanese-style Korean barbecue.

Concessions on fresh oranges were less generous this time than in the 1978 agreement. Imports of fresh oranges will expand by 11,000 tons a year during 1984-87 (11 percent a year), compared with 7,400 tons a year (16 percent) during 1979-83. The expanded trade will mainly benefit California orange growers whose product has dominated the Japanese fresh orange market for many years and should continue to maintain more than 95 percent of that market. Some increased competition could come from Australia and steady but minor competition from Taiwan and South Africa. The import quota planned by 1987 should bring the Japanese citrus market relatively closer to free trade conditions than the agreement's provisions for beef.

Japan's agreement on orange and grapefruit juice includes increasing the quota on orange juice 500 tons a year through 1987 and completely eliminating import quotas and licensing requirements for grapefruit juice by 1986. Both actions will have a positive impact on trade; yet, the overall benefits are likely to be small. The United States, which has maintained a 94-percent share of Japanese grapefruit juice imports in 1982-84, will benefit most from Japan's measures on grapefruit juice. Trade value could increase from 30 to 100 percent, or \$8-12 million, compared with an annual average of \$5.8 million in 1982-84. The increase in the orange juice quota will be of less interest to the United States because of significant competition from Brazil since the mid-1970's. The U.S. share of Japan's modest orange juice imports dropped from 81 percent in 1975-78 to 22 percent in 1982-84. [William T. Coyle (202) 447-8229]

^{1/} The Japanese definition of offal includes not only viscera such as liver, tongue, heart, etc, but also diaphragm meat (hanging tenders and outside skirts).

Continued from page 19

During U.S.-Japan subcabinet consultations on forestry products held in February 1985, the United States requested that Japan remove barriers to trade in lumber and paper products, including abolition of tariffs on plywood, veneer, particle board, and paper products. In April, Prime Minister Nakasone proposed a 5-year adjustment program for Japan's forestry sector with reductions of tariffs on forestry products likely beginning in 1987.

Trade problems strained relations with other trading partners as well. The EC continued to pressure Japan to increase its imports of manufactured products, in light of the large EC trade deficit with Japan. Southeast Asian countries were disappointed with Japan's sixth trade package of market opening measures aimed specifically at developing countries. Among other demands, they had requested a reduction or removal of tariffs on hardwood plywood (Indonesia), boneless chicken meat (Thailand), and fresh bananas (Philippines).

U.S. Agricultural Exports Attain Record

The value of U.S. agricultural exports to Japan in FY 84 reached a record \$6.9 billion, surpassing the value of U.S. agricultural exports to the EC (\$6.7 billion). Higher prices for many commodities and record shipments of coarse grain contributed to the higher value.

Despite high prices after the 1983 U.S. PIK program and drought in the Corn Belt, U.S. coarse grain shipments to Japan climbed to a record 15.7 million tons in FY 84, mainly on the strength of record corn deliveries (13.8 million tons). Uncertainty over the availability of corn and expectation of yet higher prices induced larger than normal purchases during the first three quarters of the fiscal year. Limited supplies in other corn-exporting countries boosted U.S. sales and share of Japan's corn market.

Slack demand for soymeal led to a runup in stocks and reduced bean purchases from the

United States. U.S. soybean exports to Japan in FY 84 fell 10 percent, after reaching a record 4.68 million tons in FY 83. U.S. wheat exports were up slightly from 3.39 million tons in FY 83. U.S. cotton exports increased 19

percent over the previous year, although slightly below the record 361,000 tons shipped in FY 82. The U.S. share of Japan's cotton imports improved to about 50 percent, because of reduced supplies in other cotton producing countries such as the USSR and Pakistan.

Except for beef and veal, U.S. exports of most animal products declined in FY 84, largely owing to increased competition. U.S. exports of inedible tallow fell 18 percent in FY 84 from 59,000 tons in FY 83. Stagnation in Japan's tallow-using industries held down U.S. sales. In contrast, the value of U.S. cattle hides to Japan rose 33 percent to \$292 million.

Rice Output Rebounds

Rice production rebounded 15 percent in 1984 to 10.8 million tons, the largest crop since 1979. Slightly increased area and record yields contributed to an abundant harvest. Detection of bromine (a chemical used in storing grain) contamination in a small portion of Government-held rice stocks, already low because of poor crops over the past 4 years, precipitated recall of rice loans made to South Korea 15 years ago. Repayment of 135,000 tons was made during August-October. The South Korean rice helped ease a feared shortage of industrial-use rice (used in the manufacture of rice crackers, soy sauce, bean paste, etc.).

Farmers diverted an estimated 565,000 hectares of rice area to alternative crops in 1984, slightly above the Government target of 544,000 hectares. A moderate reduction in diversion area is planned for 1985. Under its 1984-86 rice production plan, the Government has targeted 600,000 hectares for diversion each year--540,000 hectares to produce alternative crops such as wheat, barley, and forage crops, and 60,000 hectares to produce industrial-use rice.

In previous years, farmers have diverted more area to other crops than targeted because stocks were excessive and the Government was more insistent that rice production be restrained. With depleted stocks in 1984, less pressure was placed on farmers not to produce rice last spring. As a result of the excellent 1984 rice crop, Japan's rice stocks have been replenished to some extent, and the Government's goal to rebuild

U.S. agricultural exports to Japan

| Commodity groups | Fiscal years | | |
|---------------------------------|--------------|--------|---------|
| | 1983 | 1984 | 1985(f) |
| Million dollars | | | |
| Animal & animal prods. | 890 | 971 | 1,035 |
| Beef | 271 | 308 | 361 |
| Pork | 110 | 84 | 85 |
| Poultry meat | 90 | 87 | 76 |
| Tallow, ined. | 25 | 23 | 21 |
| Cattle hds; whl. | 220 | 292 | 315 |
| Other | 174 | 177 | 177 |
| Grains & feeds | 2,436 | 3,094 | 2,690 |
| Wheat & prods. | 579 | 557 | 516 |
| Rice | 1 | 1 | 0 |
| Feed grains | 1,697 | 2,332 | 1,999 |
| Feeds & fodder | 143 | 181 | 150 |
| Fruits & preps. | 273 | 289 | 295 |
| Nuts & preps. | 59 | 72 | 75 |
| Vegetables & preps. | 128 | 142 | 145 |
| Oilseeds & prods. | 1,193 | 1,348 | 991 |
| Soybeans | 1,127 | 1,282 | 958 |
| Veg. oils & waxes | 39 | 42 | 13 |
| Oilcake and meal | 8 | 2 | 0 |
| Tobacco, unmanuf. | 314 | 312 | 283 |
| Cotton, excl. linters | 462 | 590 | 595 |
| Other | 133 | 117 | 111 |
| TOTAL | 5,888 | 6,935 | 6,220 |
| 1,000 tons | | | |
| Beef | 61 | 76 | 83 |
| Pork | 30 | 26 | 24 |
| Poultry meat | 66 | 56 | 55 |
| Tallow, ined. | 59 | 48 | 45 |
| Cattle hds; whl. (1,000 no.) | 6,535 | 7,215 | 7,500 |
| Wheat & prods. | 3,389 | 3,449 | 3,350 |
| Feed grains | 14,060 | 15,742 | 15,450 |
| Soybeans | 4,679 | 4,234 | 4,200 |
| Veg. oil & waxes | 58 | 49 | 18 |
| Oilcake and meal | 35 | 8 | 0 |
| Tobacco, unmanuf. | 51 | 46 | 42 |
| Cotton, excl. linters | 297 | 354 | 370 |

SOURCE: Bureau of the Census, U.S. Department of Commerce; ERS forecasts.

stocks to between 1.1 and 1.4 million tons by the end of JFY 86 appears to be on track.

Total domestic rice consumption during 1983/84 (November–October) declined an estimated 5 percent from the previous year, mainly from reduced use of subsidized rice in formula feed. Rice in the Japanese diet is expected to continue to diminish in the 1984/85 marketing year, as it has almost every year since 1963. No rice will be used for animal feeding in 1984/85.

Japan exported 102,000 tons of rice in calendar 1984, compared with 321,000 in 1983. Most of this rice was sold on concessional terms or donated to African and Asian countries, including Indonesia, Bangladesh, and Kampuchea. No exports are forecast for 1985.

Effective February 1985, the Government increased the resale (wholesale) price of rice an average 3.7 percent to 18,327 yen per 60 kilograms (\$1,237 a ton, brown basis). The 1984 producer price for rice was raised 2.2 percent last July to 18,668 yen per 60 kilograms (\$1,260 a ton, brown basis). The new prices narrow the gap between producer and resale prices to less than 2 percent and ease the financial pressure from consumer subsidies on the Government's Food Control Account for rice. The Government decided not to raise the resale price of wheat, thereby altering the relationship between wheat and rice prices, and encouraging greater consumption of wheat.

Wheat and Barley Production Up

Wheat area expanded slightly in 1984 to 232,000 hectares, and production rose 6.6 percent to 741,000 tons. Favorable weather boosted yields, especially in Hokkaido, where about 40 percent of the nation's output is produced. Total wheat area is expected to decline slightly in 1985 because of the likelihood of less rice paddy area diverted to wheat and other crops.

Imports of wheat during 1984 totaled 6.0 million tons, compared with 5.8 million tons in 1983. The United States accounted for 57 percent of the total, Canada 25 percent, and Australia 18 percent. The Canadian Wheat Board renewed its annual agreement with the Food Agency to supply Japan with 1.3 million

tons of wheat in 1985, the same amount specified in the 1984 agreement, and 800,000 tons of barley—100,000 tons less than in 1984. Australia concluded a similar agreement with Japan, promising 900,000 tons of wheat in 1985, the same amount as in 1984. Japan's wheat flour exports rose sharply in 1984 to 300,000 tons, compared with 212,000 tons in 1983. Most of Japan's exports went to Hong Kong and the PRC.

Total wheat consumption during the 1983/84 marketing year (July–June) increased marginally over 1982/83, reflecting generally stable demand, although there has been a recent trend toward increased consumption of bread and noodles. Production of pasta products such as macaroni and spaghetti declined slightly as imports of these products expanded.

Because of a tight agriculture budget, the Government decided to freeze the purchase price for the 1984 wheat crop at 11,092 yen per 60 kilograms (\$748 a ton). Barley prices were also frozen at last year's level.

Barley production in 1984 rose 4 percent to 396,000 tons, while area declined 6 percent. Higher yields of two-row barley, used for brewing, and naked barley were responsible for the larger 1984 crop. Total barley imports in 1984 reached 1.6 million tons, compared with 1.5 million tons in 1983. Canada is the major supplier of barley to Japan, with the United States and Australia residual suppliers. Because of reduced availability in 1984, Canada supplied only 700,000 tons, 200,000 tons less than agreed.

Fruit Production Down

Japanese production of mandarin oranges (mikan) fell an estimated 29 percent in 1984 to just over 2 million tons. Unusually cold weather during the winter and lighter blossoming of trees contributed to the sharp decline in output. Planted area continues to decline because of the ongoing production adjustment program begun in JFY 84 to reduce total mikan area. Area of other minor citrus varieties such as navel oranges has been increasing.

As a result of the U.S.–Japan accord on citrus, Japan's imports of fresh oranges will

increase 11,000 tons annually through JFY 87 to 126,000 tons. The United States continued to supply nearly all of Japan's fresh orange imports in 1984, although Australia supplied a small amount (504 tons) following trial shipments in September 1983. The United States remained the leading supplier of Japan's grapefruit imports in 1984, with small amounts coming from Israel, Cuba, and Mexico.

Livestock Sector Expands

Japan's production of livestock products increased 3 percent in 1984. Beef and veal output expanded 8 percent to 535,000 tons, because of a large increase in the slaughter of Wagyu cattle (the native Japanese breed) and an increase in average carcass weights. Pork output rose only slightly, reflecting stagnant consumer demand. Broiler output expanded at a vigorous 7 percent, as producers responded to increased consumer demand and stable feed prices. Output of milk was up 1.5 percent in 1984, less than expected because of low yields during the hot summer months. Egg production grew over 1 percent, despite low egg prices and ongoing Government efforts to reduce the size of layer flocks.

Livestock Product Imports Up

Imports of most livestock products were up substantially in 1984. Total beef and veal imports rose 16 percent to 146,000 tons (product weight), as a result of increased beef import quota levels for JFY 84. The U.S. share of Japan's beef imports increased to 29 percent, compared with 27 percent in 1983, reflecting Japan's commitment to increase imports of high-quality beef under the U.S.-Japan accord signed in August 1984. Mutton and lamb imports declined to 75,000 tons from 83,000 tons in 1983. New Zealand and Australia are the principal suppliers.

Pork imports grew 18 percent to a record 196,000 tons. Denmark regained a dominant position in this market after the September 1983 lifting of a ban on its pork put there previously because of a hoof-and-mouth outbreak. Record Taiwanese pork production enabled Taiwan to shift to second place with a 26-percent share, up from 20 percent in 1983. A strong U.S. dollar and high prices caused U.S. sales to dip significantly in 1984. The U.S. share fell from 21 percent (35,410 tons) in

1983 to 12 percent (22,930 tons) in 1984. Canada's share also declined from 25 percent to 15 percent in 1984.

Imports of poultry meat nudged up slightly to 107,000 tons. The United States remains the major supplier of poultry meat to Japan, although the U.S. share slipped under 50 percent in 1984, compared with 64 percent in 1983. Thailand's share recovered to 29 percent from 21 percent in 1983. Sales of Brazilian poultry reached 9,000 tons in 1984, up from 1,000 tons the year before. Imports from China totaled 12,100 tons, down marginally from 1983. The Japanese Government denied Thailand's persistent requests for a further cut in the tariff on boneless chicken, currently 18 percent, apparently because of strong opposition from domestic producers. However, Japan will accelerate the scheduled reduction (approved in the last round of Multilateral Trade Negotiations) in the tariff on chicken legs to 11.3 percent (from 13.8 percent) effective April 1985 instead of April 1986, and will also

Japan's imports of principal agricultural commodities and the U.S. share

| Commodity | Volume | | U.S. share | |
|----------------------------|------------|--------|------------|------|
| | 1983 | 1984 | 1983 | 1984 |
| | 1,000 tons | | Percent | |
| Corn | 14,701 | 14,170 | 91 | 97 |
| Sorghum | 2,957 | 4,478 | 22 | 42 |
| Barley | 1,477 | 1,567 | 19 | 26 |
| Soybeans | 4,995 | 4,515 | 93 | 93 |
| Raw cotton | 666 | 708 | 47 | 53 |
| Wheat | 5,816 | 5,978 | 58 | 57 |
| Sugar | 1,803 | 1,836 | -- | -- |
| Coffee beans | 204 | 223 | -- | -- |
| Pork | 166 | 196 | 21 | 12 |
| Beef | 137 | 146 | 27 | 29 |
| Poultry meat | 104 | 107 | 64 | 50 |
| Whole cattle hides | 206 | 219 | 82 | 86 |
| Tobacco | 80 | 75 | 65 | 61 |
| Citrus fruit | 386 | 370 | 97 | 97 |
| Bananas | 576 | 682 | -- | -- |
| Million dollars | | | | |
| Total agricultural imports | 16,765 | 18,206 | 41 | 42 |

-- None or negligible.

SOURCE: Japan's Ministry of Finance, Japan Exports and Imports: Commodity by Country, 1983 and 1984 December issues.

Farm and consumer food prices
in Japan

| Commodity | 1982 | 1983 | 1984 | 1984/ 1983 |
|------------------------|--------------|-------|-------|---------------|
| | Yen/Kilogram | | | Percent |
| Farm prices | | | | |
| Rice | 299 | 304 | 304 | 100 |
| Wheat | 184 | 185 | 185 | 100 |
| Barley | 190 | 191 | 191 | 100 |
| Eggs | 246 | 241 | 230 | 95 |
| Pork | 450 | 440 | 448 | 102 |
| Milk | 100 | 100 | 100 | 100 |
| Poultry | 262 | 257 | 254 | 99 |
| Beef | 1,057 | 1,014 | 988 | 97 |
| Tobacco | 1,780 | 1,802 | NA | -- |
| Citrus | 93 | 80 | NA | -- |
| Potatoes | 54 | 65 | 97 | 149 |
| Onions | 33 | 83 | 105 | 127 |
| Tea | 1,481 | 1,489 | 1,388 | 93 |
| 1980 = 100 | | | | |
| Consumer price indices | | | | |
| Food | 107 | 109 | 112 | 103 |
| Meats | 106 | 107 | 108 | 101 |
| Fish | 111 | 110 | 110 | 100 |
| Fruits | 108 | 107 | 109 | 102 |
| Vegetables | 96 | 104 | 117 | 113 |

SOURCES: Foreign Agricultural Service, USDA, Agricultural Situation Report; Japan's Ministry of Agriculture, Forestry and Fisheries, Monthly Statistics; and Management and Coordination Agency, Monthly Statistics of Japan.

reduce tariffs on certain processed chicken products. The United States is the major supplier of chicken legs to Japan.

Meat Consumption Rises

Consumption of beef, pork, and poultry expanded in 1984, buoyed by strong demand for processed meat products. However, consumption of unprocessed meat cuts, which account for the majority of demand, grew only moderately. The rising trend in demand for processed products is expected to continue.

Formula Feed Output Up Slightly

Total formula feed production expanded 3 percent during January–November 1984 from the same period in 1983. Output of beef and dairy rations was up 6 percent; broilers, 6 percent; and swine, 4 percent, paralleling expansion in those sectors. Livestock production and formula feed output are expected to grow more modestly in 1985.

Feed prices during 1984 were slightly above 1983 prices. Zennoh, Japan's largest feed manufacturer, lowered feed prices 4 percent for July–December 1984 deliveries to 75,350 yen per ton because of lower grain and protein meal prices. Feed prices were lowered further (4.3 percent for bulk deliveries) for January–June 1985, reflecting stable or declining ingredient costs.

Grain Consumption Expands

Consumption of coarse grain was up nearly 5 percent in 1984, encouraged by gains in livestock production, and the sharp decline in the use of rice in animal feed. Total imports of coarse grain exceeded 20 million tons, compared with 19.4 million tons in 1983. Greater imports of sorghum (up 51 percent), barley (up 6 percent), and rye (up 157 percent) offset a 4-percent decline in corn imports. Price relationships particularly favored sorghum as a substitute for corn in formula feeds.

The United States captured an unusually large 97-percent share of Japan's corn imports, because of limited South African supplies and an aflatoxin problem in Thai corn. Corn imports from the PRC picked up steadily beginning in June and reaching 211,000 tons for 1984, compared with no imports in 1983 and 1982. Abundant supplies and proximity to Japan favor a substantial increase in corn imports from the PRC in 1985.

The U.S. share of Japan's sorghum imports rose to 42 percent in 1984, compared with 22 percent in 1983. Argentina's share fell to 36 percent in 1984, compared with 75 percent a year earlier because of increased sales to the Soviet Union. Because of ample export supplies from its bumper 1983 crop, Australia was able to increase its share of Japan's sorghum imports to 22 percent, from 4 percent in 1983.

The United States and Australia improved their shares of Japan's barley imports in 1984, attaining 26 percent and 30 percent, respectively, because of reduced Canadian supplies. Canada's share declined to 43 percent from an average 69 percent for 1982–83.

Soybean Crushing Down

Despite expansion in 1984 feed production, soybean crushing contracted slightly during October 1983–September 1984 to 3.83 million tons, after record crushings of 3.85 million tons the previous year. More favorable rapeseed and fish meal prices contributed to stagnant soymeal demand. Rapeseed crushings rose 7 percent to 1.25 million tons. Soymeal use in mixed feed production fell to about 10 percent during 1983/84, compared with 11 percent in 1982/83.

Soybean imports fell 10 percent in calendar 1984 to 4.5 million tons with the United States supplying 93 percent. Imports of Chinese food-quality soybeans rose to 308,000 tons, from 288,000 tons in 1983. Rapeseed imports, supplied by Canada, were up 8 percent to 1.3 million tons.

Surplus soybean meal production also slowed the pace of soymeal imports. Only 116,000 tons were imported in 1984, compared with 234,000 tons the year before. All of the meal was supplied by Brazil (90 percent) and the PRC (10 percent).

Greater production and imports of rapeseed oil during 1984 helped to meet vegetable oil demand without adding to the soymeal surplus. Soybean oil imports totaled 9,000 tons, a modest increase from 1983.

Cotton Imports Up

The textile sector improved somewhat during 1984. Yarn prices were favorable, mostly because of continuing production restraints by cotton spinners. However, an influx of yarn imports from other Asian countries threatened price gains.

Imports of raw cotton totaled 708,000 tons, up 6 percent from 1983, of which the United States supplied 53 percent. U.S. exports were aided by competitive prices and reduced supplies from other traditional exporters, such as the USSR and Pakistan. Despite the PRC's increased export availability, only 24,000 tons of Chinese cotton were imported by yearend because of quality and supply problems.

Agricultural Growth To Slow

With average yields and marginally increased area, rice output will probably decline in 1985 from last year's excellent harvest. Nevertheless, Japan will have plentiful supplies to meet consumption requirements. A likely reduction in 1985 wheat area and a return to more normal yields will also cause wheat output to be lower next year, improving prospects marginally for increased wheat imports. Barley area and production will likely decline as well in 1985, owing to less paddy area diverted to alternative crops. On the other hand, with better growing conditions, fruit output should increase next season, although no significant increase in growing area is expected.

Growth in the livestock sector is projected to be modest. Reduced cattle slaughter will cause beef output to decline. In contrast, pork production is forecast to increase 2 to 3 percent because of a larger 1984 pig crop. Poultry output will probably expand less rapidly in 1985 because of concerns over weakening chicken prices. Egg production is forecast to increase marginally in the face of a generally weak egg market. Output of milk is expected to expand 2 percent or more in 1985, helping to ease tight supplies of nonfat dry milk.

Overall consumption of livestock products will probably not expand significantly, although demand for cheaper priced processed meat products is expected to remain strong. Increased competition from imports will continue to hurt domestic livestock producers. Beef and veal imports are forecast to expand again in 1985, in accordance with the August 1984 accord. On the other hand, pork imports probably will be held down by increased domestic production. Although total poultry meat imports will remain steady, imports of boneless chicken, and processed chicken products in particular, should increase with continued growth in demand for these products.

With growth in livestock production expected to be modest, output of formula feed, and thus consumption of coarse grain, is projected to expand only slightly in 1985.

Price relationships are expected to continue to favor the use of sorghum over corn in formula feed, at least during the first half of the year. Growth in soybean crushing will continue to be restrained by sluggish demand for soymeal and slow growth in oil consumption.

U.S. Exports Decline

The value of U.S. agricultural exports to Japan is forecast to drop about 10 percent in FY 85 from last year's record \$6.9 billion. Weaker prices for many commodities, slower growth in the economy, as well as increased competition from other exporting countries will contribute to the U.S. decline.

Specifically, U.S. coarse grain shipments are projected to fall slightly from FY 84's high level, primarily because of reduced corn exports. The U.S. share of Japan's corn imports is expected to fall because of continued imports of PRC corn, maybe as much as 2 million tons. U.S. exports of soybeans are also expected to be down from last year's depressed level, checked by continued slack demand for soybean meal and increased competition from South American soybeans.

On the other hand, U.S. cotton exports are forecast to exceed fiscal 1984 shipments, enjoying a 50 percent or better share of a market that has shown no growth since 1973. Except for beef and veal, U.S. exports of animal products will probably not improve in FY 85, hampered by strong competition in Japan's pork and poultry markets. Moreover, growth in U.S. exports of inedible tallow and cattle hides will be limited by uncertain prospects in Japan's soap and leather goods industries. [*Lois A. Caplan (202) 447-8229*]

South Korea

South Korea's imports of major agricultural commodities fell 4 percent in 1984 because of sharp drops in corn and beef imports. U.S. agricultural exports to South Korea increased 6 percent in value, but declined in volume. Increased volumes of tallow, cattle hides, and wheat exports offset reduced exports of feed grain, rice, and cotton. The value of U.S. agricultural exports to South Korea is forecast to drop 10 percent

in FY 85 because of weaker prices, heightened competition from the PRC and restrictive Korean trade policies designed in some cases to raise domestic prices and others to reduce accumulated stocks.

Total South Korean agricultural output rose 4 percent in 1984, led by good rice and vegetable crops. Production of all livestock products except poultry meat also increased. Low meat prices led to increased slaughter of cattle and hogs and limits on beef imports. High milk support prices created surplus problems and measures to restrict imports of dairy cattle.

Korea's farm policy centered on protecting the agricultural sector from low prices and foreign competition. Despite some consideration of eliminating subsidy programs for inputs and reducing import restrictions, no major steps were taken. The Government response to low beef prices was to cut off imports of live cattle and beef, to keep stocks off the market, and to purchase cattle. Plans to liberalize wheat flour and soybean imports will probably be stalled by domestic opposition. Feed compounders will be limited in their ability to import ingredients while surplus barley is available.

Bumper Rice Crop in 1984

South Korea's 1984 harvest of 5.68 million tons was the largest since 1978-79, and the third largest on record. The crop was 3.8 percent above the Government's target, and exceeded 1983 rice output 5.2 percent. High yields resulting from ideal weather, and a slight increase in area planted, led to the record crop. The share of total area planted to high-yielding varieties, currently 30 percent, continued to decline because of lower prices for these varieties. The Ministry of Agriculture and Fisheries (MAF) has set the 1985 production target at 5.6 million metric tons, 3 percent above the 1984 target, but below 1984.

Despite a successful rice harvest and adequate stocks, South Korea, in an unprecedented gesture, accepted 7,200 tons of rice from North Korea to aid flood victims. South Korea's acceptance of this aid reflected its desire to open a political dialogue with the North.

A significant importer of rice since 1977/78, South Korea became a net exporter in 1984 when it shipped 135,000 tons to Japan as repayment for rice loans extended by Japan in 1969 and 1970. With rice stocks of more than 1.2 million tons, South Korea was able to meet the Japanese request for repayment without difficulty.

The price support program for rice and barley, funded by the MAF Grain Management Fund (GMF), had a deficit of \$500 million in 1984, compared with \$450 million in 1983. This increase in deficit was caused by a 3-percent rise in the Government's procurement price for rice and purchases totaling 1.4 million tons, 11 percent above 1983.

Barley, Corn, and Wheat Production Down

Area planted to food barley in 1984 was estimated one-third less than the previous year, and output was down slightly to 804,000 tons. The decline in area was due to a dramatic reduction in Government price supports. In recent years, high price supports have led to expanding production, declining consumption, and a buildup of surplus stocks. Besides cutting support prices, the Government instituted a disposal program in 1984 directing feed millers and distillers to purchase approximately 500,000 tons of surplus barley at Government procurement prices. Area planted to malting barley increased 51,000 hectares in 1984 in response to growing demand from the brewing industry.

Wheat production dropped sharply from 112,000 tons in 1983 to 17,000 tons in 1984 because of the Government's termination of price supports in 1983. The 1985 forecast for wheat output is approximately the same as for 1984. The 1985 production target for corn is set at 135,000 tons, slightly higher than 1984 output.

Barley Consumption Decreases

Growth in real income and relatively stable food prices have led to increased demand for pork and dairy but reduced total demand for food grains. Per capita rice consumption was up 2 percent during 1984 to 129.8 kilograms but is expected to fall marginally in 1985 and continue to decline in

Agricultural production in South Korea

| Commodity | 1982 | 1983 | 1984 | 1984/83 |
|------------------------|---------------|-------|-------|---------|
| | 1,000 tons | | | Percent |
| Rice, paddy | 7,307 | 7,608 | 7,970 | 105 |
| Vegetables | 7,501 | 6,509 | 6,720 | 103 |
| Beef and veal | 83 | 90 | 122 | 136 |
| Pork | 238 | 295 | 340 | 115 |
| Eggs | 248 | 271 | 270 | 100 |
| Milk | 580 | 712 | 830 | 117 |
| Chicken meat | 99 | 120 | 121 | 101 |
| Apples | 527 | 586 | 528 | 90 |
| Barley | 749 | 815 | 804 | 99 |
| Indices of production | 1969-71 = 100 | | | |
| Crops | 152 | 150 | 153 | 102 |
| Livestock | 235 | 273 | 308 | 113 |
| Total agriculture | 129 | 128 | 131 | 102 |
| Per capita agriculture | 129 | 128 | 131 | 102 |

NOTE: Commodities shown are in order of importance in 1984 gross agricultural income and represent about 90 percent of total agricultural output.

SOURCES: Economic Research Service, USDA, World Indices of Agricultural Production, 1974-83 and Foreign Agricultural Service, USDA, Annual Situation Report for South Korea.

Farm and consumer food prices in South Korea

| Commodity | 1982 | 1983 | 1984 | 1984/ 1983 |
|------------------------|--------------|-------|-------|---------------|
| | Won/Kilogram | | | Percent |
| Farm prices | | | | |
| Rice | 789 | 782 | 778 | 99 |
| Wheat | 334 | 336 | 290 | 86 |
| Barley | 418 | 430 | 444 | 96 |
| Swine, live wt. | 1,592 | 1,362 | 1,138 | 84 |
| Milk | 312 | 313 | 313 | 100 |
| Broilers | 1,733 | 1,642 | 1,763 | 107 |
| Beef cattle, live wt. | 3,504 | 3,761 | 3,577 | 95 |
| Tobacco | 2,170 | 2,170 | 2,170 | 100 |
| Cabbage | 72 | 117 | 166 | 142 |
| | 1980 = 100 | | | |
| Consumer price indices | | | | |
| Food | 131 | 132 | 134 | 102 |
| Meats | 156 | 160 | 161 | 101 |
| Fish | 133 | 143 | 139 | 97 |
| Fruits | 118 | 108 | 106 | 98 |
| Vegetables | 109 | 114 | 139 | 114 |

SOURCES: Korean National Agricultural Cooperative Federation, Monthly Review, January 1985; and ERS estimates.

the future. As part of a price subsidy program for grains, Government rice stocks will be released for domestic consumption during the spring when rice prices are seasonally high. Per capita consumption of barley dropped 36 percent in 1984 to 6.1 kilograms and is expected to fall to 5.5 kilograms in 1985. Demand for barley was depressed in 1984 because abundant rice supplies kept prices low.

Vegetable Output Increases; Fruit Decline

Despite September flooding, which adversely affected the red pepper and onion crops, overall vegetable production in 1984 was up approximately 3 percent from 1983. Vegetable production accounts for approximately 20 percent of gross agricultural income, next to rice and livestock in importance to Korea's agriculture. Vegetables grown in vinyl greenhouses during the winter account for approximately 8 percent of vegetable production and are responsible for much of the increase in vegetable output in recent years.

Tangerine production in 1984 dropped 21 percent because of severe cold weather and reduced flowerings caused by a large 1983 crop. As a result, wholesale tangerine prices almost doubled in 1984. Production of most other fruit was also down in 1984.

Swine Industry Goes Through Cyclical Adjustment

After a sharp buildup in inventories through 1983, a 25-percent decline in prices led to increased slaughterings in 1984. Pork production jumped 11 percent and lower prices stimulated a corresponding increase in domestic consumption. The South Korean swine sector has been subject to rapid inventory growth at times of high prices, causing oversupply, falling prices, and increased slaughterings. These cycles occur approximately every 2.5 to 3 years. Higher prices in late 1984 set the stage for another expansion in 1985.

Beef Sector Beset by Lower Prices

Beef consumption dropped an estimated 10 percent in 1984. Weak demand led to a decline in slaughter prices, beginning in November 1983, and by October 1984 had

prompted the Government to curtail all beef imports except for the hotel and restaurant trade. Government release of imported beef slowed by mid-1984 and was halted in November. The MAF plans to suspend beef imports during 1985 until prices increase. Imports of hotel and restaurant beef, which include all beef imports from the United States, should not be affected by the new import policy.

Beginning 1984 inventories of beef and dairy cattle were both slightly higher than the year before. Beef cattle numbers were an estimated 2.3 million head at the beginning of 1985, with a small increase expected by the end of the year. Beginning 1985 dairy cattle numbers were estimated at 170,000 head. A guaranteed price of \$17 per cwt for milk has encouraged expansion in milking herd numbers over the last few years. Annual milk production increased 20 percent each of the last 2 years causing surpluses. The Government banned imports of dairy cattle in January 1985 to help alleviate this problem.

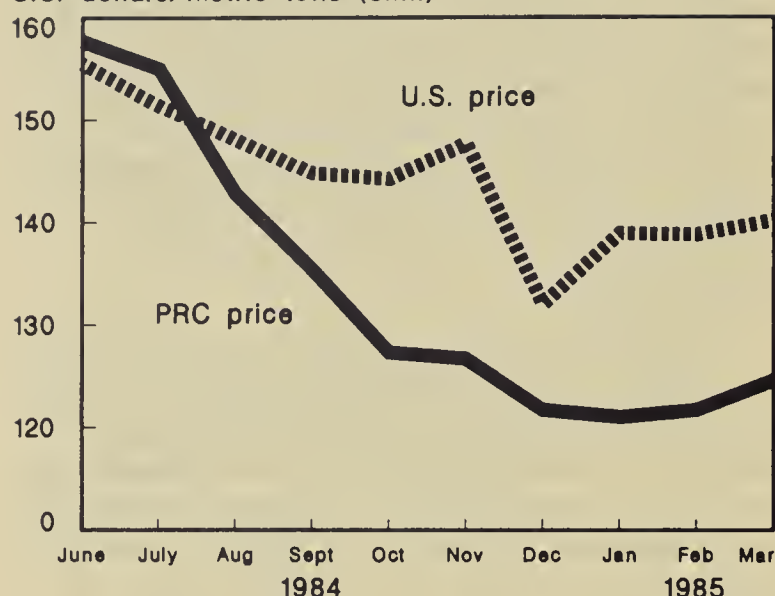
The calf crop, down slightly in 1984, is expected to increase 6 percent in 1985, reaching about 920,000 heads. Depressed slaughter cattle prices, together with a tight financial situation for producers trying to pay off loans taken out for purchase of high priced 1983 calves, have prompted the MAF to lower standards on slaughter age and weight, to increase calf purchases by the Government-controlled National Livestock Cooperatives Federation (NLCF), and to restrict imports of beef and live cattle. December 1984 producer prices for cows and steers were 20 and 11 percent below those a year earlier, but policy measures are expected to strengthen these prices through 1985.

Formula Feed Industry Faces Constraints

Total formula feed production is expected to increase only slightly in 1985. In spite of prospects for increased feed demand from an expanding livestock sector, the Government plans to control formula feed output by restricting imports of feed ingredients. The 1985 Feed Supply and Demand Plan calls for minimizing the use of imported feed ingredients by changing feed formulations to utilize less corn and more domestic feed ingredients such as barley.

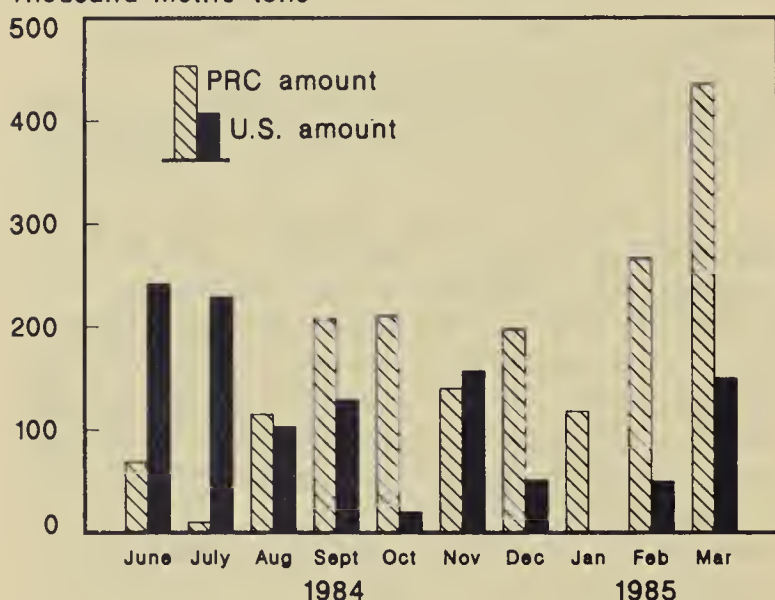
South Korea Corn Import Prices

U.S. dollars/metric tons (c.i.f.)



South Korea Corn Imports

Thousand metric tons



During 1984, lower priced Australian feed wheat substituted for corn in feed rations. Corn's share of grain in total formula feed output dropped to 61 percent in 1984 from 90 percent in 1983. Government plans call for corn's share to fall below 60 percent in 1985 as shares increase for feed wheat and Government-released barley. The share of grain substitutes like tapioca pellets may increase. Domestic forages will also be promoted in 1985, with a target of 6.3 million tons, dry matter basis, 33 percent above 1984.

Changing Sources of Feed Grain Imports

South Korean imported approximately 660,000 tons of feed wheat from Australia in

1984 and is expected to import about half that amount in 1985. The Australian Wheat Board announced in early April that Australia's feed wheat stocks were practically depleted.

The U.S. share of South Korea's coarse grain imports, 95 percent in 1983, dropped to 79 percent 1984 and is forecast to fall even further in 1985 because of competition from the PRC. During June 1984–March 1985, South Korea purchased 1.3 million tons of corn from the PRC while purchases from the United States dropped off significantly. Imports of Chinese corn are expected to continue during the rest of 1985. Chinese corn, roughly comparable to that of U.S. corn, in quality, has been priced considerably lower (see figures). South Korea also purchased a total of 87,000 tons of sorghum from the PRC during November 1983–January 1985, the first such sales on record.

Farm Imports Decline in 1984

The total volume of South Korea's agricultural imports declined in 1984. Increases in raw cotton, tallow, cattle hides, and some feed ingredients more than offset declines in corn, soybean meal, and beef. Of the leading U.S. agricultural exports to South Korea, corn, rice, wheat, soybean meal, and dairy and beef cattle showed decreases in volume.

Korea imported 353,000 tons of raw cotton in 1984, 5 percent above 1983. The United States supplied 79 percent of the total, with Australia and the PRC the other major suppliers. Chinese cotton was priced marginally below U.S. cotton, but Korean mills did not shift their purchases significantly because of quality problems. The U.S. share for the first 4 months of the 1984/85 (August–November) marketing year was the same as a year earlier. Consumption during these 4 months increased 4 percent, but polyester fiber prices, marginally above those of raw cotton for 1985, could lower cotton sales. On the other hand, a 10-percent increase in credit guarantees allocated for exports of U.S. raw cotton is expected to encourage increased sales of U.S. cotton to South Korea. The amount allocated to cotton under the GSM-102 program for 1985 is \$270 million dollars, compared with \$245 million last year.

South Korea's imports of principal
agricultural commodities and the U.S. share

| Commodity | Volume | | U.S. share | |
|----------------------------|-----------------|-------|------------|------|
| | 1983 | 1984 | 1983 | 1984 |
| | 1,000 tons | | Percent | |
| Corn | 4,057 | 3,070 | 97 | 83 |
| Sorghum | 159 | 326 | 35 | 42 |
| Soybeans | 658 | 703 | 100 | 100 |
| Soybean meal | 340 | 135 | 84 | 32 |
| Raw cotton | 337 | 353 | 82 | 79 |
| Beef | 67 | 28 | 2 | 4 |
| Whole cattle hide | 153 | 156 | 89 | 88 |
| Tallow | 138 | 178 | 57 | 55 |
| Wheat | 1,853 | 2,645 | 99 | 72 |
| | Million dollars | | | |
| Total agricultural imports | 2,895 | 4,232 | 67 | 52 |

SOURCE: Republic of Korea, Office of Customs Administration. Statistical Yearbook of Foreign Trade, December 1983 and 1984 issues.

Soybean imports increased 7 percent to 703,000 tons in 1984. Soybean imports for food use are expected to rise 7 percent to 160,000 tons in 1985, but imports for crushing are expected to show only marginal gains. Soybean meal imports fell 60 percent in volume in 1984. Soybean meal used in feed fell from a 12.5-percent share in 1983 to 9.5 percent in 1984. Higher prices for soybean meal during 1984 and the availability of lower priced substitutes were responsible for the decline in use.

Imports of U.S. cattle hides rose 17.5 percent in 1984 because of strong demand for Korean leather good exports. Imports of hides and skins are expected to remain stable in 1985.

U.S. Agricultural Exports Declining

The value of U.S. agricultural products to South Korea is forecast to decline approximately 17 percent in 1985. The U.S. share of South Korea's feed grain imports will continue to suffer in 1985 because of competition from lower priced feed wheat from Australia and corn and sorghum from the PRC. During the first months of 1985, only 15 percent of feed grain purchases were of U.S. origin, with the U.S. c.i.f. price about \$18 a ton higher than PRC corn. Continued PRC competition in 1985 may reduce the U.S.

U.S. agricultural exports
to South Korea

| Commodity groups | Fiscal years | | |
|---------------------------------|-----------------|-------|---------|
| | 1983 | 1984 | 1985(f) |
| | Million dollars | | |
| Animal & animal prods. | 245 | 332 | 332 |
| Beef | 4 | 7 | 9 |
| Tallow, ined. | 30 | 46 | 66 |
| Cattle hds; whl. | 152 | 247 | 257 |
| Grains & feeds | 861 | 777 | 537 |
| Wheat & prods. | 301 | 300 | 315 |
| Rice | 61 | 0 | 0 |
| Feed grains | 495 | 470 | 217 |
| Feeds & fodder | 2 | 5 | 5 |
| Fruits & preps. | 7 | 4 | 5 |
| Nuts & preps. | 1 | 1 | 2 |
| Vegetables & preps. | 4 | 5 | 7 |
| Oilseeds & prods. | 195 | 238 | 159 |
| Oilcake & meal | 17 | 15 | 8 |
| Soybeans | 170 | 215 | 147 |
| Veg. oils & waxes | 6 | 5 | 4 |
| Cotton, excl. linters | 392 | 443 | 459 |
| Other | 8 | 16 | 13 |
| TOTAL | 1,713 | 1,816 | 1,514 |
| | 1,000 tons | | |
| Tallow, ined. | 70 | 97 | 130 |
| Cattle hds; whl. (1,000 no.) | 4,507 | 5,654 | 5,500 |
| Wheat & prods. | 1,844 | 1,985 | 2,120 |
| Rice | 246 | 0 | 0 |
| Feed grains | 3,942 | 3,087 | 1,500 |
| Oilcake & meal | 80 | 60 | 55 |
| Soybeans | 701 | 707 | 720 |
| Veg. oil & waxes | 5 | 5 | 5 |
| Cotton, excl. linters | 277 | 272 | 300 |

SOURCE: Bureau of the Census, U.S. Department of Commerce; ERS forecasts.

market share of total agricultural imports below 50 percent for the first time in 20 years.

In addition to purchases of feed wheat from Australia, milling wheat imports, purchased solely from the United States, are expected to increase along with income growth and expected dietary changes. Imports of wheat flour are not expected to be liberalized as scheduled because of miller opposition. Sorghum imports for 1985 could equal the 300,000 tons in 1984 if prices remain favorable. Soybeans imports are expected to

rise in 1985. The U.S. has been the sole supplier of soybeans to South Korea in the past.

Korea ceased importing beef cattle early in 1984. Dairy cattle imports continued through most of 1984, but ended late in the year because of excessive milk production. South Korea's beef imports will also decline, but the U.S. share should increase, because high-grade beef imports will not be restricted to the same extent. Demand for U.S. raw cotton in 1985 should be strong since the textile industry is forecast to perform well in 1985 despite a slow start. The U.S. share of this market is likely to return to its 1983 share of about 80 percent. [Maria-Elena Pomar (202) 447-8364]

Taiwan

Despite robust economic growth and no increase in agricultural output, Taiwan's overall agricultural imports declined 1-percent in 1984. U.S. agricultural export volumes were also down. With higher prices, however, the value of U.S. exports to Taiwan hit a record \$1.4 billion, with the small island country retaining its rank as the seventh most important U.S. overseas farm market. Fiscal 1985 U.S. agricultural exports to Taiwan are forecast to remain steady at \$1.4 billion; gains in volume for many of the bulk commodities are expected to offset lower prices.

Cyclical adjustments and disease problems in the hog and poultry industries partially explained the decline in 1984 imports of coarse grain and soybeans. Hog prices were off 16 percent despite record export demand of 52,000 tons. An outbreak of Newcastle disease in early 1984 reduced poultry feeding. Import demand for coarse grain and soybeans is expected to be marginally higher in 1985 as hog inventories and poultry production expand.

Taiwanese farm policy centered on the reduction of rice area and the disposal of surpluses that had built up since the early seventies. A 6-year diversion program, initiated in 1984, led to the shifting of 63,800 hectares (11 percent of rice area) to other crops, mainly fruits and vegetables. Subsidized rice exports amounted to 209,754 tons in 1984 with Indonesia the major market. Taiwan's rice exports in 1985 will be limited to 330,000 tons, in accordance with an

understanding with the American Institute reached in March 1984.

Rice Diversion Program To Solve Surplus Problem

Production of rice, the dominant staple food and most important crop in Taiwan, has far exceeded domestic consumption since the early seventies. To remedy surplus rice production, the Government initiated a Six-year Rice Diversion Program. Beginning with the 1984 crop, the program encourages farmers to plant crops other than rice.

To implement this program, the Government announced that for each hectare of riceland used to produce either corn or sorghum, a farmer would receive 1 ton of paddy rice and guaranteed prices for the alternative crops. For each hectare idled or converted to fish culture, horticulture, or other crops, a farmer would receive 1.5 tons of paddy rice in addition to low interest loans needed to convert the riceland for fish culture or horticulture.

Agricultural production in Taiwan

| Commodity | 1982 | 1983 | 1984 | 1984/83 |
|------------------------|---------------|-------|-------|---------|
| | 1,000 tons | | | Percent |
| Pork | 525 | 591 | 700 | 118 |
| Rice, paddy | 3,360 | 3,369 | 3,042 | 90 |
| Poultry meat | 293 | 352 | 350 | 99 |
| Vegetables | 3,044 | 3,019 | 3,215 | 106 |
| Eggs | 153 | 210 | 207 | 99 |
| Sugarcane | 8,275 | 7,070 | 6,529 | 92 |
| Citrus fruit | 391 | 379 | 355 | 96 |
| Tea | 24 | 24 | 24 | 100 |
| Indices of production | 1969-71 = 100 | | | |
| Crops | 103 | 100 | 98 | 98 |
| Livestock | 196 | 232 | 251 | 108 |
| Total agriculture | 114 | 115 | 115 | 100 |
| Per capita agriculture | 90 | 89 | 88 | 99 |

NOTE: Commodities shown are in order of importance in 1984 gross agricultural income and represent about 90 percent of total agricultural output.

SOURCES: Economic Research Service, USDA, World Indices of Agricultural Production, 1974-83; Foreign Agricultural Service, USDA, Annual Situation Report for Taiwan; and Taiwan Council of Agriculture, Agricultural Situation Weekly, No. 13, March 2, 1985.

Farm and consumer food prices in Taiwan

| Commodity | 1982 | 1983 | 1984 | 1984/ 1983 |
|------------------------|---------------|------|------|---------------|
| | NT\$/Kilogram | | | Percent |
| Farm prices | | | | |
| Rice | 16 | 14 | 15 | 107 |
| Peanuts | 57 | 54 | 66 | 122 |
| Eggs | 37 | 36 | 41 | 114 |
| Swine | 61 | 58 | 49 | 84 |
| Broilers | 55 | 55 | 53 | 97 |
| Beef cattle | 82 | 77 | 86 | 112 |
| 1980 = 100 | | | | |
| Consumer price indices | | | | |
| Food | 122 | 124 | 121 | 98 |
| Meats | 121 | 121 | 112 | 93 |
| Fish | 123 | 128 | 123 | 96 |
| Fruits | 150 | 158 | 144 | 91 |
| Vegetables | 128 | 155 | 132 | 85 |

SOURCES: Republic of China, Directorate General of Budget, Accounting and Statistics, *Commodity Price Monthly*, Nov. 1984; Republic of China, Council for Economic Planning and Development, *Industry of Free China*, Jan. 1985; and ERS estimates.

As a result of the program, 63,804 hectares of rice paddy were diverted to other crops in 1984. Rice production decreased 9.7 percent to 2.09 million tons, the lowest in 20 years. Despite less riceland, rice production still exceeded domestic needs by more than 200,000 tons.

Other measures implemented to lower the rice surpluses include the exporting rice and subsidizing its use in feed. Since 1977, Taiwan has subsidized rice exports, a contentious issue with U.S. rice interests. An understanding reached in March 1984 limits Taiwan's rice exports to 1.4 million tons during 1984-88. Last year, its rice exports dropped 61 percent to 210,000 tons from 533,000 tons the year before. About 300,000 tons of old rice were also designated for feed use during June 1984-March 1985.

Other Crop Production Varied

Production of coarse grain, vegetables, and fruits benefited substantially from good weather and the rice diversion program. Corn production increased 32 percent to 190,000 tons; sorghum increased from 14,000 to 32,000

tons. Total vegetable production increased 6 percent to about 3.2 million tons, causing retail prices to drop 15 percent. Similarly, total fruit production increased 5 percent, and average retail fruit prices dropped 9 percent.

Sugar cane production has steadily decreased over the years. In 1984, production was only 6.5 million tons, 7.7 percent lower than the previous year. Taiwan sugar exports dropped 20 percent to only 129,709 tons in 1984. Because of low world sugar prices, the Government continued to use a stabilization fund to make exports competitive, losing a reported \$300 a ton.

Hog Production and Exports Hit Record

Hog production, which accounts for more than 20 percent of gross agricultural income, is the largest sector in the livestock economy, and pork has been the most valuable agricultural export since 1976. After realizing good profits in 1983, producers expanded operations in 1984, leading to a record pig crop and an increase of 1.5 million head slaughtered over the previous year. Despite unprecedented success in exporting pork to Japan, abundant pork supplies throughout 1984 kept farm prices very low. The average annual farm price for swine dropped 16 percent from 1983. By mid-December 1984, as the farm price continued to slip, emergency measures were announced to encourage exports and restrict sales by large hog farms. Some extra bonuses were given to export processing factories if the number of hogs slaughtered exceeded the previous year's.

The Government purchased hogs from small producers (less than 200 head), but restricted purchases from larger ones. Because of low hog prices, export promotion efforts, and improved packing, Taiwan's pork exports--virtually all to Japan--increased about 54 percent in 1984 to a record 52,000 tons. Taiwan was the second largest supplier to the Japanese market after Denmark, and followed by Canada and the United States.

Chicken ranks second to pork in the value of meat production. Production of broilers was down in the first half of 1984 because of depressed market conditions and an outbreak of Newcastle disease resulting in the loss of about 3 million birds (about 5 percent of the total flock). Recovery in the second half of

the year brought total annual production to 250,000 tons—slightly less than 1983. Total 1984 egg production decreased more than 1 percent, to 3.51 billion pieces, with 87 percent hen and the remainder duck eggs. The decrease is mainly because of oversupply and low prices in the previous year.

Taiwan's cattle industry is still in its infancy. Except for water buffalo, the number of other types of cattle are insignificant. Beef and veal production was only 6,000 tons in 1984. So far, efforts to develop a modern cattle industry based on modern methods of animal husbandry have not been successful. Demand for beef, dairy products, cow hides, and inedible tallow are met mostly by imports.

Coarse Grain and Soybean Imports Declined

Wheat, corn, soybeans, cotton, cattle hides, powder milk, fish meal, and wool are Taiwan's major agricultural imports, with each item valued at more than \$100 million in 1984. In mid-1984, the Government amended regulations regarding the imports of wheat,

coarse grain, and soybeans. While requiring feed manufacturers (most of them also importers) to purchase domestically produced grains (including rice) and soybeans for feed use, the revised regulations allow feed manufacturers to import no less than 80 percent of their assigned import quotas (formerly 90 percent). Also, to help fund the rice diversion program, fees levied against imports of wheat, corn, and soybeans to support the activities of the Taiwan Grains and Feeds Development Foundation (TGFDF) were increased from NT\$40 to NT\$242 per ton as of February 1984.

Partly because of these policy changes, and partly because riceland was diverted to coarse grain production, which displaced small amounts of imports, coarse grain imports decreased in 1984. Imports of corn and barley declined 499,000 and 29,000 tons, respectively. Sorghum—an item exempt from TGFDF fees and one with a favorable price relationship to corn—showed an increase of 63,000 tons. The United States continued to dominate Taiwan's 1984 coarse grain imports with shares of 99 percent for corn, 38 percent for sorghum, and 57 percent for barley. Australia emerged as a strong competitor in the sorghum and barley markets because of bumper 1983 crops.

Corn remained Taiwan's most important coarse grain import, accounting for 75 percent of the 1984 total. Reduced corn imports and low stocks caused shortages and high prices in the fall of 1984. A 2-year ban on Thai corn was lifted and two shipments arrived in October to help ease the shortage. After high levels of aflatoxin were detected, the shipments were delayed; they were finally allowed entry but only for industrial use. The corn shortage, aggravated by the aflatoxin incident, caused a stormy debate among authorities and importers regarding regulation of bulk commodity imports. The Government decided to enforce a long-standing regulation that mandates importers to maintain stocks at 2-months consumption.

Soybean imports, mainly crushed for use in livestock production, dropped about 5 percent in 1984. This is probably because of higher prices and a 16-percent drop in farmgate prices for hogs. The United States supplied virtually all Taiwan's soybean imports. A deal with Uruguay, initiated in

Taiwan's imports of principal agricultural commodities and the U.S. share

| Commodity | Volume | | U.S. share | |
|----------------------------|------------|-------|------------|------|
| | 1983 | 1984 | 1983 | 1984 |
| | 1,000 tons | | Percent | |
| Corn | 3,459 | 2,960 | 91 | 99 |
| Sorghum | 534 | 597 | 29 | 38 |
| Barley | 411 | 382 | 67 | 57 |
| Soybeans | 1,414 | 1,345 | 100 | 100 |
| Raw cotton | 232 | 264 | 30 | 42 |
| Wheat | 701 | 669 | 87 | 77 |
| Tobacco | 10 | 12 | 76 | 82 |
| Beef | 23 | 24 | 6 | 7 |
| Cattle hides | 92 | 92 | 74 | 69 |
| Fish meal | 204 | 262 | 2 | 3 |
| Meat meal | 110 | 111 | 65 | 72 |
| Powder milk | 57 | 66 | 7 | 8 |
| Apple | 77 | 46 | 75 | 70 |
| Million dollars | | | | |
| Total agricultural imports | 2,797 | 3,119 | 50 | 51 |

SOURCES: Republic of China, Inspectorate General of Customs, *The Trade of China*, December 1983 and 1984 issues.

early 1984 to buy 170,000 tons of soybeans, was not settled due to a disagreement on price. In addition to a large volume of soybeans, Taiwan also imported fish meal and meat meal for feed use. Most fish meal was imported from Japan, and the U.S. market share was insignificant. But the United States accounted for 72 percent of Taiwan's meat meal imports in 1984.

Cotton, Hides, and Most Food Imports Increase

Raw cotton imports responded closely to export demand for Taiwan's textiles. After a strong increase of textile orders in early 1984, cotton imports increased 14 percent. The U.S. share was about 42 percent, and the remainder came from a wide range of exporting countries, mainly Mexico and Australia. Strong price and quality competition among exporting countries are important determinants of market shares. Taiwan also imported substantial amounts of Australian and New Zealand wool for processing and reexport.

Imports of cattle hides, mainly for the manufacture of footwear, garments, and handbags, showed almost no change in 1984. Cow hides, accounting for three-fourths of hide requirements, were mainly from the United States, which supplied 69 percent of the total. Taiwan also imports significant amounts of pig skin, mainly from Japan. Despite Taiwan's huge hog industry, domestic production of pig skins is insignificant because pork sold domestically goes with the skin attached.

The United States also was a major supplier of wheat, tobacco, apples, and many other consumer-ready agricultural products. While most of the beef and dairy products came from Australia and New Zealand, U.S. beef represented 6.4 percent of the total volume in 1984, but a 10-percent value share because of relatively higher prices. Also in 1984, the United States had a market value share of 59 percent for processed fruit and nuts; 90 percent for grapes; 61 percent for citrus; and 26 percent for off-season vegetables, mainly onions, celery, and lettuce.

Wheat imports decreased 4 percent to 669,000 tons in 1984. Because Taiwan

produces less than 2,000 tons of wheat annually, demand for wheat is mainly satisfied by imports. The United States supplied 77 percent of Taiwan's wheat imports, and the remainder came from Canada and Uruguay. Taiwan's imports of unmanufactured high-quality, flue-cured tobacco increased 14 percent in 1984 to 11,519 tons, unaffected by a stock buildup of domestically produced low-quality tobacco. The United States dominated this market with an 82-percent volume share in 1984.

Since import controls on apples were removed in 1979, Taiwan has become a very attractive market for U.S. apple exporters. Imports decreased from 77,000 to 46,000 tons in 1984, because apples, once a luxury item, lost their novelty. Plenty of cheap domestically produced fruits were also available and competed with apples for consumer spending. The method of assessing duties on the c.i.f. value of U.S. apple imports was changed by Customs in November to prevent importers from constantly paying less duty because of undervalued shipments. Duty assessment will now be based on domestic wholesale prices, which might reduce demand for apple imports. U.S. apples, although maintaining a dominant position in Taiwan's market, dropped their volume share from 75 percent in 1983 to 70 percent in 1984, with competition from Canada, South Korea, Chile, and New Zealand.

Prospects for 1985

Surplus rice production will continue to burden Taiwan's agricultural sector in 1985. The official target for rice production is near 1984's 2.09 million tons, and rice exports will be limited to 330,000 tons. Increases in rice consumption are expected with 505,000 tons earmarked for feed use in 1985.

Although the 1985 target for diverting 34,000 hectares of rice paddy to corn and 6,000 hectares to sorghum may be difficult to achieve, the production of corn and sorghum is expected to increase over 1984. Still, the increase probably will not significantly affect imports because domestic production constitutes less than 10 percent of total demand. Soybean production will continue to be insignificant--about 9,000 tons in 1985. Vegetable and fruit production may increase,

because experience in 1984 showed that most diverted rice paddy went to these crops.

In the livestock sector, pig production will be cut back in 1985 because low prices are expected through most of the year. The decrease in pig production, however, probably will not cause any setback for feed grain imports because of large beginning hog inventories. Broiler production is expected to return to about the 1983 level because Newcastle disease is no longer a problem. Egg production probably will remain steady, mainly because of increasing concern over cholesterol in the diet.

Taiwan will continue to import large quantities of coarse grain, soybeans, cotton, hides, wheat, and other foods. The Board of Foreign Trade (BOFT) has approved 1985 quotas for major bulk commodities as follows: soybeans (1.17 million tons); corn (2.75 million tons); wheat (700,000 tons); barley (420,000 tons); and sorghum (597,275 tons). The appropriate trade associations, namely the Flour Millers Association, the Maize Import Joint Committee, and the Soybean Import Joint Committee, are authorized to allocate quotas among members. In addition, the BOFT reserves the authority to allocate an extra quota of up to 20 percent for the processor members in these associations. So far, BOFT has approved these extra import allowances for soybeans (230,000 tons) and corn (500,000 tons). Approved 1985 quotas are higher than imports in 1984 with increases for soybeans (4 percent), coarse grain (8 percent), and wheat (5 percent).

U.S. wheat exports to Taiwan are forecast to be 660,000 tons in FY 85. Under a private long-term purchase contract between U.S. grain companies and Taiwan importers, at least 590,000 tons will come from the United States, who will continue to dominate the market with Canada and Uruguay as major competitors.

The United States will continue to dominate Taiwan's coarse grain import market. U.S. exports are forecast to increase 10 percent to 3.25 million tons in FY 85. U.S. export sales of corn and sorghum to Taiwan for October 1984-March 1985 were 30 percent ahead of a year earlier. This may be attributed to the mandated stock requirements recently enforced by the Government.

Australia may emerge as a strong competitor in the sorghum and barley markets because of abundant and competitively priced supplies. Uruguay may become another competitor for Taiwan's corn and sorghum markets.

U.S. soybean exports to Taiwan in 1985 are forecast at 1.375 million tons, up 4.5 percent from a year ago. Despite the

U.S. agricultural exports to Taiwan

| Commodity groups | Fiscal years | | |
|---------------------------------|--------------|-------|---------|
| | 1983 | 1984 | 1985(f) |
| Million dollars | | | |
| Animal & animal prods. | 110 | 148 | 168 |
| Beef | 6 | 6 | 9 |
| Tallow, ined. | 13 | 13 | 11 |
| Cattle hds; whl. | 75 | 114 | 131 |
| Other | 16 | 15 | 17 |
| Grains & feeds | 561 | 579 | 593 |
| Wheat & prods. | 105 | 106 | 105 |
| Feed grains | 433 | 440 | 442 |
| Feeds & fodder | 23 | 32 | 45 |
| Fruits & preps. | 41 | 29 | 39 |
| Nuts & preps. | 5 | 4 | 5 |
| Vegetables & preps. | 8 | 8 | 11 |
| Oilseeds & prods. | 346 | 422 | 367 |
| Soybeans | 336 | 414 | 362 |
| Veg. oils & waxes | 7 | 7 | 6 |
| Tobacco, unmanuf. | 51 | 62 | 67 |
| Cotton, excl. linters | 96 | 143 | 152 |
| Other | 19 | 14 | 16 |
| TOTAL | 1,237 | 1,409 | 1,418 |
| 1,000 tons | | | |
| Beef | 2 | 1 | 2 |
| Tallow, ined. | 37 | 28 | 21 |
| Cattle hds; whl. (1,000 no.) | 2,185 | 2,669 | 3,000 |
| Wheat & prods. | 611 | 627 | 660 |
| Feed grains | 3,438 | 2,957 | 3,250 |
| Soybeans | 1,403 | 1,316 | 1,375 |
| Veg. oil & waxes | 7 | 5 | 3 |
| Tobacco, unmanuf. | 9 | 11 | 11 |
| Cotton, excl. linters | 77 | 104 | 98 |

SOURCE: Bureau of the Census, U.S. Department of Commerce; and ERS forecasts.

possibility that Taiwan may buy small amounts of soybeans from Uruguay, most will continue to come from the United States.

Taiwan's textile export outlook shifted from optimistic last summer to pessimistic by the fall. The downward trend in exports sales started in the fourth quarter. Taiwan is expected to buy 98,000 tons of U.S. cotton in FY 85, 6 percent below FY 84's import level.

The import demand for cattle hides is expected to continue strong in FY 85. Purchases may shift some to Canada because of decreased production and higher prices in the United States. U.S. whole cattle hide (excluding wet blues) exports to Taiwan for January-March 1985 were 9 percent below exports a year ago.

U.S. apple exports in the first quarter of FY 85 decreased because of the unsettled problem over customs valuation. However, Taiwan will probably remain an important

market for U.S. apple exports in 1985 because of income growth.

In short, the United States will continue in 1985 to be Taiwan's largest supplier for wheat, coarse grain, soybeans, cotton, tobacco, cattle hides, and apples. The U.S. market share of bulk commodities could suffer setbacks by recent contracts between Taiwan and some other countries. A contract with Canada to deliver 81,000 tons of wheat begins in 1985. A 3-year contract beginning in 1984 with Uruguay will continue to supply 35,000 to 70,000 tons of sorghum a year. Talks are also underway to expand sorghum and wheat and commence corn and soybean purchases from Uruguay. Moreover, the effectiveness of the rice diversion program, release of Government-controlled rice for feeding purposes, and enforcement of inventory requirements could alter the above forecasts and U.S. market share. [*Sophia Wu Huang* (202) 447-8229]

PROSPECTS FOR EAST ASIAN TEXTILE INDUSTRIES: IMPLICATIONS FOR U.S. COTTON EXPORTS

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Abstract: Japan, Hong Kong, Taiwan, and Korea are major markets for U.S. cotton exports, but U.S. shipments to the region will probably decline. High wages in East Asia, and efforts by industrial countries to inhibit textile imports, could reduce East Asian mill use of cotton. Further, increased competition from China and Australia will probably cause the U.S. share of East Asian imports to fall.

Keywords: East Asia, Japan, Hong Kong, Taiwan, Korea, textile trade, cotton trade

Introduction

Shipments to Japan, Hong Kong, Taiwan, and Korea accounted for 55 percent of total U.S. cotton exports during 1979/80 through 1983/84, but U.S. exports to those countries could decline during the next several years. Mill use in East Asia could fall because textile industry wage rates have been pushed higher by economic growth. Countries like Thailand, India, China, and others are now able to gain

larger shares of the textile markets in the United States, Canada, Western Europe, and East Asia itself. In addition, the currencies of Taiwan and Hong Kong are pegged to the U.S. dollar, so the increase in the dollar since 1980 has affected East Asian exports, especially to Western Europe.

A second threat is that the U.S. share of the East Asian cotton market could decline as exports from China and Australia rise. Third

is the attempt by many industrialized countries, including the United States, to restrict textile imports. The United States receives nearly 20 percent of the yarn and fabric exports and nearly 50 percent of the apparel exports of East Asia (table A). The U.S. Government tried in 1983 and 1984 to slow import growth by increasing the number of categories covered by quotas and by changing the definition of "country-of-origin."

These changes, strongly protested by textile exporters, could affect trade flows. Hong Kong, in particular, could be affected by the country-of-origin rules, since Hong Kong imports large quantities of yarn, fabric, and piece goods and exports mostly apparel.

Strong Dollar, Lower Tariffs Favor Region

Taiwan, Korea, and Hong Kong export 60–95 percent of their textile production.

Table A---Textile exports by major destination

| Destination | 1980 | 1981 | 1982 | 1983 | 1984 |
|--------------------------------|------|------|------|------|------|
| Percent of Korean exports | | | | | |
| U.S. | 21 | 24 | 27 | 33 | N/A |
| EEC | 20 | 19 | 18 | 16 | N/A |
| Japan | 17 | 17 | 16 | 12 | N/A |
| Hong Kong | 7 | 7 | 4 | 4 | N/A |
| Percent of Taiwan's exports | | | | | |
| U.S. | 28 | 30 | 34 | 37 | 40 |
| Hong Kong | 16 | 16 | 12 | 12 | 13 |
| Japan | 9 | 9 | 9 | 7 | 9 |
| West Germany | 6 | 5 | 5 | 4 | 3 |
| Percent of Japan's exports | | | | | |
| U.S. | 9 | 11 | 12 | 14 | 17 |
| Hong Kong | 12 | 11 | 12 | 13 | 13 |
| PRC | 6 | 8 | 5 | 4 | 6 |
| Korea | 5 | 5 | 4 | 4 | 5 |
| Percent of Hong Kong's exports | | | | | |
| U.S. | 31 | 35 | 36 | 42 | 50 |
| West Germany | 16 | 14 | 13 | 11 | 10 |
| U.K. | 13 | 12 | 12 | 9 | 9 |
| Japan | 3 | 5 | 4 | 4 | 4 |
| PRC | N/A | 3 | 3 | 4 | 5 |

SOURCES: *Textile Asia*, Jan. 1985; various State Department airgrams on the East Asian textile and apparel industries; and Office of the Prime Minister, *Japan Statistical Yearbook*, various issues.

Japan exports only about 30 percent of its textile production, compared with 40 percent in 1960. Exports to the United States by all of East Asia rose between 50 and 90 percent during 1980–84. The increase in the value of the dollar, the strength of the U.S. economy and lower U.S. tariffs in 1983 and 1984 caused the large increase.

U.S. tariffs on textile imports averaged 22 percent of export values in 1982, but tariff rates have declined about 1 percentage point a year since 1983 and should continue through 1987. Tariffs add about 16 percent to the landed cost of imported apparel items, and the tariff reductions scheduled through 1987 could alone cause U.S. apparel imports from East Asia to rise about 11 percent. However, during the remainder of the 1980's, the dollar may weaken somewhat, and the economies of the United States, Canada, and Europe will probably grow at moderate rates. Consequently, demand for East Asian textiles will probably grow only slowly.

Quotas and Trade Rules Constrain Growth

Access to U.S., Canadian, Australian, and Western European textile markets is limited by import quotas. The United States has bilateral agreements with 36 textile exporting countries. In 1984, about 40 percent of U.S. textile imports from Taiwan and Korea were limited by quotas; as were 50 percent of those from Hong Kong; and about 20 percent of those from Japan. The United States is also implementing new country-of-origin rules to prevent circumvention of limits on U.S. textile imports. The new rules inhibit importing fabric and apparel pieces to be finished into apparel and reexported. This practice is common in Hong Kong, and reexports to the United States equal about 5 percent of total Hong Kong textile exports. Taiwan, Korea, and Japan will probably not be much affected by the new rules.

Rising Wages Threaten East Asian Market Share

Rising wages and competition from new textile exporters pose a bigger threat to the industries of Japan, Korea, Hong Kong, and Taiwan than do quotas. During spring 1984, wages in the spinning and weaving industries

of Japan averaged \$6.28 an hour, thirteenth highest out of 44 countries studied (table B). Wages averaged \$1.89 in Korea (ranked 26); \$1.65 in Hong Kong (27); and \$1.64 in Taiwan (28). India, Thailand, Pakistan, China, Indonesia, and five other countries had wage rates below \$0.75 an hour.

During summer 1981 through spring 1984, hourly wages in Japan rose 28 percent when measured in U.S. dollars; in Korea, 40 percent; in Hong Kong, 16 percent; and in Taiwan, 24 percent. During that period, U.S. dollar-wages in many countries declined, such as in West Germany, or grew more slowly, as in Holland. So exports from Japan, Hong Kong, Taiwan, and Korea have had less of a cost advantage in European markets than they previously did, and this partially explains the trade shifts shown in table A.

Table B--Hourly spinning and weaving labor cost comparisons

| | Spr- ing 1980 | Sum- mer 1981 | Aut- umn 1982 | Spr- ing 1984 | Change 1981 to 1984 |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------------|
| | U.S. dollars | | | Percent | |
| United States | 6.37 | 7.03 | 7.53 | 8.60 | 22 |
| Europe | | | | | |
| Holland | 11.68 | 9.16 | 10.17 | 9.80 | 7 |
| West Germany | 10.65 | 8.17 | 8.38 | 7.54 | -8 |
| Spain | 4.90 | 4.48 | 4.64 | 3.87 | -14 |
| East Asia | | | | | |
| Japan | 4.35 | 4.90 | 5.64 | 6.28 | 28 |
| South Korea | 0.78 | 1.35 | 1.53 | 1.89 | 40 |
| Taiwan | 1.26 | 1.32 | 1.43 | 1.64 | 24 |
| Hong Kong | 1.91 | 1.42 | 1.40 | 1.65 | 16 |
| PRC | NA | NA | NA | 0.26 | — |
| Southeast Asia | | | | | |
| Thailand | 0.33 | 0.34 | 0.53 | 0.56 | 65 |
| Indonesia | NA | 0.63 | NA | 0.22 | -65 |
| South Asia | | | | | |
| India | 0.60 | 0.69 | 0.66 | 0.71 | 3 |
| Pakistan | 0.34 | 0.42 | 0.37 | 0.49 | 17 |
| Other | | | | | |
| Mexico | 3.10 | 3.06 | 0.91 | 2.62 | -14 |
| Egypt† | 0.39 | 0.43 | 0.73 | 0.90 | 112 |
| Dollar 1/ | 90.3 | 103.1 | 119.8 | 132.8 | 29 |

1/ Multilateral trade-weighted value of the U.S. dollar, March 1975 = 100.

SOURCES: Werner International Management Consultants. Economic Report of the President, various issues.

Wage rates have a major impact on apparel production costs. Low wage countries like Malaysia, Thailand, and China produce apparel similar in quality to that of the United States, but their production costs are 60 percent less.^{1/} Hong Kong, Taiwan, and Korea produce apparel comparable in quality to U.S. production, but have production costs that are 25-40 percent less. Production costs in Japan are probably within 10 percent of U.S. costs.

During 1980-84, U.S. textile imports, measured in dollars, rose 96 percent. Imports from East Asia rose less than 96 percent; U.S. imports from Malaysia, Thailand, Sri Lanka, and China rose more than 200 percent. East Asia's declining U.S. market share reflects the constraints of textile import quotas and higher wage rates.

Outlook for U.S. Cotton Exports

Japan

Because of high wages and the threat of textile imports, cotton mill use in Japan might decline, as it has in the United States. Mill use in Japan averaged 718,000 tons annually during 1965/66-1983/84, and is forecast slightly lower at 708,000 tons for 1984/85. Renewed interest in natural fibers by Japanese consumers, an emphasis on production of higher valued apparel, and an effort by the Government to sustain the textile industry near its current level, could keep Japanese cotton mill use from falling sharply.

Cotton yarns account for 23 percent of total Japanese yarn production. As in the United States, cotton's share of fiber mill use in Japan fell from more than 50 percent in the early 1960's to about its present level by 1978. Textile industry sources in Japan report that consumers increasingly prefer natural fibers, and cotton's market share may begin to rise.

Japan currently imports about 14 percent of its textile products, and the spinning industry is threatened by yarn imports. The Japanese textile industry is trying to develop higher valued products in which low-wage

^{1/} Texscope U.S.A., 1983, Werner Management Consultants, Inc., 111 W. 40th St., New York, NY 10018.

countries are not competitive, and it is trying to cut production costs through energy conservation, vertical integration, and investment in more efficient machinery.

The Law Concerning Temporary Measures For The Structural Improvement of Textile Industries was first passed in 1967 and has been extended to 1989. The law provides for the Government to assist the textile industry with loans to replace inefficient equipment, but not to expand capacity; subsidies for research and development; technical training of textile workers; and assistance for small companies with obsolete plants who want to leave the textile industry. The Japanese textile industry is not seeking import quotas, but it has asked yarn exporters in Korea, China, and Pakistan to voluntarily reduce growth in shipments to Japan. The goal is to keep the Japanese textile industry at its current level of production.

U.S. cotton exports to Japan may fall to 260,000 tons, about 40 percent of projected Japanese imports, by 1990/91. The United States has gained market share during the 1980's, because the Japanese have imported higher grade cotton to produce higher quality textiles (table C). Reduced production in the Soviet Union, Mexico, and other countries has also assisted U.S. exports.

The United States is the best source of large quantities of high-grade cotton. The Soviet Union has traditionally been a strong competitor in the Japanese high-quality cotton market, and supplied an average of 11 percent of total Japanese imports during 1978-82. However, Soviet cotton production peaked at 2.9 million tons in 1980 and fell to less than 2.6 million tons in 1984. The Soviet Union has a history of being unable to meet agricultural production targets.

The other major competitor in the Japanese high-grade cotton market is Australia, where production is limited by available water. The grade distribution of cotton production in China is not known precisely, but China lacks the marketing infrastructure to export large numbers of standard sized bales of uniform quality. Further, China's textile mills may be allowed to use whatever high-quality cotton is produced, leaving even less for export.

Table C--Cotton mill use, imports, and U.S. share

| Year | Mill use 1/ | Imports 2/ | | |
|-----------------|-------------------|------------|------|------------|
| | | Total | U.S. | U.S. share |
| | | 1,000 tons | | Percent |
| JAPAN | | | | |
| 1970-74 | 751 | 796 | 206 | 26 |
| 1975-79 | 696 | 693 | 232 | 33 |
| 1980 | 717 | 719 | 314 | 44 |
| 1981 | 746 | 700 | 259 | 37 |
| 1982 | 716 | 784 | 353 | 45 |
| 1983 | 718 | 666 | 316 | 47 |
| 1984 | 708 | 708 | 372 | 53 |
| 1990 (proj.) | 650 | 650 | 260 | 40 |
| HONG KONG | | | | |
| 1970-74 | 160 | 161 | 40 | 25 |
| 1975-79 | 212 | 220 | 74 | 34 |
| 1980 | 157 | 227 | 112 | 49 |
| 1981 | 148 | 153 | 45 | 29 |
| 1982 | 160 | 158 | 66 | 42 |
| 1983 | 170 | 187 | 26 | 14 |
| 1984 | 156 | 218 | 59 | 27 |
| 1990 (proj.) | 140 | 150 | 22 | 15 |
| KOREA | | | | |
| 1970-74 | 137 | 130 | 125 | 96 |
| 1975-79 | 254 | 245 | 238 | 97 |
| 1980 | 315 | 334 | 317 | 95 |
| 1981 | 337 | 322 | 278 | 86 |
| 1982 | 341 | 340 | 319 | 94 |
| 1983 | 352 | 337 | 278 | 82 |
| 1984 | 355 | 353 | 279 | 79 |
| 1990 (proj.) | 390 | 390 | 240 | 62 |
| TAIWAN | | | | |
| 1970-74 | 148 | 148 | 81 | 55 |
| 1975-79 | 214 | 200 | 107 | 54 |
| 1980 | 200 | 261 | 153 | 59 |
| 1981 | 231 | 190 | 71 | 37 |
| 1982 | 250 | 280 | 187 | 67 |
| 1983 | 269 | 232 | 70 | 30 |
| 1984 | 258 | 264 | 110 | 42 |
| 1990 (proj.) | 300 | 300 | 130 | 43 |
| TOTAL EAST ASIA | | | | |
| 1970-74 | 1,196 | 1,235 | 453 | 37 |
| 1975-79 | 1,376 | 1,358 | 651 | 48 |
| 1980 | 1,390 | 1,541 | 896 | 58 |
| 1981 | 1,462 | 1,365 | 653 | 48 |
| 1982 | 1,467 | 1,562 | 925 | 59 |
| 1983 | 1,509 | 1,422 | 690 | 49 |
| 1984 | 1,477 | 1,543 | 820 | 53 |
| 1990 (proj.) | 1,480 | 1,490 | 655 | 44 |

1/ Marketing year, August-July. 2/ Calendar year.

SOURCES: Foreign Agricultural Service, USDA; and same source for figure 1.

Cotton exports from Mexico, Brazil, and India will be limited by Government efforts to stress textile production. Production in Central America is made difficult by civil war. Cotton from Pakistan, mostly short staple, will compete directly with cotton from China, and dryland areas in Australia and Texas. Thus, it will not compete directly with U.S. cotton from the Far West.

Hong Kong

U.S. exports to Hong Kong will probably fall as yarn and fabric imports rise and as China's share of the Hong Kong market increases. Hong Kong's textile production is almost entirely for export. Economic growth in the United States, Canada, Australia, New Zealand, and Western Europe is forecast to be lower during 1985-90 than it was in the 1960's and 1970's, and that will inhibit growth in textile demand. Hong Kong faces stiff competition in developed country markets from low-wage textile producers. As the world's largest apparel exporter, Hong Kong is often the target of protectionist sentiment from industrialized countries. Of Hong Kong's exports of textiles, 80 percent by value are controlled by bilateral agreements under the Multifiber Agreement (MFA).

Hong Kong suffers from high labor, energy, and land costs. Electrical power accounted for 20-25 percent of total cotton yarn manufacturing costs in 1981. The decline in energy prices since 1982 has alleviated the situation, but power remains expensive in Hong Kong. China opened the Shenzhen Special Economic Zone (across the border from Hong Kong) in 1980, and several Hong Kong spinning and weaving plants were relocated in the zone to take advantage of cheaper labor, land, and electricity. Spinning capacity in Hong Kong shrunk from 756,000 spindles in 1980 to 600,000 in 1981. Most of the excess machinery was sold to China. Despite the difficulties faced by Hong Kong, its spinning and weaving sectors will not disappear because of Hong Kong's preeminent position as an apparel exporter.

The U.S. share of Hong Kong's cotton imports may fall to about 15 percent. U.S. Western cotton will probably retain at least some share of Hong Kong's market because of quality, but China will undoubtedly become

the dominant supplier. Short staple cotton from China could entirely supplant cotton from Texas, Pakistan, and much of Africa. Production difficulties in the Soviet Union and Central America will reduce exports from those areas. All of China's competitors will have higher transportation costs.

Korea

For decades, U.S. cotton supplied nearly 100 percent of Korean import needs because of political ties and available U.S. financing. Beginning in 1980, Korea adopted a policy of import diversification, and the U.S. share could fall to 60 percent by 1990/91.

Despite a rapid rise in textile industry wages, mill use in Korea is still rising. Korea exports 60-70 percent of its textile production, but domestic demand is becoming more important. Korean incomes are rapidly increasing and relaxed school dress codes allow students to wear a wider variety of clothes. Cotton's share of fiber consumption has fallen to about 35 percent, from 40 percent in the late 1970's. However, total fiber mill use has risen quickly enough to allow for increased cotton consumption, despite a loss of market share.

Korea is concerned about competition from lower wage countries, particularly China. The Korean textile industry is attempting to move into higher quality lines and to reduce production costs. In 1978, it exported \$4 billion in textile goods and employed 722,000. By 1982, textile exports rose 49 percent, to \$5.9 billion, but textile industry employment rose only 3 percent, to 742,000. The improved productivity allowed Korea to remain competitive and to maintain trade surpluses in yarn, fabric, and apparel.

Korean textile exports are limited by Japan, Australia, Austria, Sweden, Norway, Finland, the EC, and the United States. The growth rate for textile exports will moderate from the 1970's. This is because the United States is allowing quota growth of 0.5-1.5 percent a year, the EC is allowing 2 percent a year, and Korea's cost advantage is diminishing with higher wages. Still, its textile exports should continue to rise as long as it has a cost advantage.

Increased purchases of long staple cotton from Egypt and Sudan since 1980 is evidence of Korea's desire to upgrade its cotton yarn production, while it diversifies its imports. Because of proximity, China's cotton exports to Korea will rise. The United States will probably continue to supply over half of Korea's import needs because of the quality of U.S. cotton, political ties, and a continuation of U.S. Government export financing.

Taiwan

Of the four East Asian countries, Taiwan is the only one to whom U.S. cotton exports will probably rise. Trade between Taiwan and China is minimal, even counting transshipments through Hong Kong. Cotton mill use in Taiwan is expanding due to rising textile exports, and the United States should be able to maintain 40 to 50 percent of the Taiwan cotton market because of the quality of U.S. cotton.

Taiwan's textile industry is composed of small, under-capitalized factories, but the Government is encouraging consolidation and increased investment. In 1981, there were 823 registered garment makers in Taiwan, only 5 of which had assets greater than 1.4 million U.S. dollars. Efforts to improve productivity have been successful. During 1978-83, the value of textile production rose 49 percent, while industry employment fell 3.4 percent.

In 1983, Taiwan exported 74 percent of its textile production by value, compared with 68 percent in 1981. The change reflected an effort to expand exports of higher valued high-fashion apparel. The United States, the EC, and Canada restrict textile imports from Taiwan, and 40-50 percent of Taiwan's textile

exports go to those countries. The new Taiwan dollar is tied to the U.S. dollar, and the increase in the U.S. dollar has made it difficult for Taiwan to expand export sales outside the United States. Assuming the U.S. dollar weakens during 1985-90, Taiwan may be able to expand textile exports to Europe more rapidly.

Taiwan plans to nearly double its man-made fiber production capacity during 1984-86, but the increase is in response to export demand for man-made fiber. Cotton's share of fiber mill use in Taiwan has been holding its own at more than 50 percent since 1978. During 1978-1983, cotton yarn production in Taiwan rose 25 percent, while man-made fiber yarn production dropped 5 percent. During those years, production of blended (cotton/man-made fiber) yarns rose 68 percent.

Conclusion

U.S. cotton exports to Japan, Hong Kong, Korea, and Taiwan averaged 793,000 tons a year from 1980/81 to 1983/84--55 percent of U.S. exports. However, the influence of increased cotton exports by China and Australia and competition from low-wage textile exporters are already affecting East Asian mill use and the U.S. market share. Exports to Japan, Korea, and Hong Kong are forecast to decline from 720,000 tons in 1984/85 to 520,000 tons a year by 1990/91. Exports to Taiwan may rise from 98,000 tons in 1984/85 to 130,000 in 1990/91. The U.S. share of raw cotton imports by Hong Kong and Korea is bound to decline as exports from China expand and Japan, Hong Kong, and Korea will probably import more yarn and fabric for use in apparel production.

EAST ASIA'S FEED-LIVESTOCK ECONOMY: PROSPECTS TO 1995

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Abstract: East Asia's already large coarse grain imports are projected to increase 60 percent from 1984/85 to 1995/96, mostly to meet expanded feed demand. East Asia grows very little coarse grain, but produces most of its own livestock products. Meat demand is rising slightly faster than per capita incomes. The region's pork, chicken, and egg sectors are efficient, leaving little room for more imports. Its inefficient beef and dairy sectors are sheltered by Government policies. Even so, beef and dairy product imports should increase substantially between 1984/85 and 1995/96.

Keywords: Coarse grain, feed, livestock products, projections, East Asia, Japan, South Korea, Taiwan, Hong Kong.

Introduction

East Asia, currently the destination for about 30 percent of all coarse grain that goes into world trade, is projected to import 46 million tons of coarse grains in 1995/96, a 60-percent rise over the 29 million in 1984/85. Almost all of the additional imports will be used for animal feed. Over the same period, East Asian beef imports are expected to rise from 300,000 to 600,000 tons, and dairy product imports from 2.0 to 3.0 million tons.

Feed Grain Consumption and Imports Burgeon

East Asia's countries share certain characteristics that contribute to the region's large and rapidly increasing coarse grain imports. Sustained rapid income growth has brought them to the point where consumers are purchasing significant quantities of livestock products. Per capita incomes in East Asia are expected to continue growing rapidly by international standards, although not as fast as during the past 15 years. Even now, per capita meat consumption is still much lower than in Western countries. As expected in countries where the population lives mostly near seacoasts, fish remains an important source of animal protein. It is unlikely that fish production will be expanded enough to maintain its share relative to meat, due to problems with overfishing on a global scale, and to tightening restrictions on East Asian fishing within 200-mile limits of other countries. All these factors will contribute to growth in meat consumption.

East Asian consumers' demand for livestock products is mostly transformed into a derived demand for imported feed. High international transport costs and domestic agricultural policies both encourage local livestock operations, while limited land resources preclude large-scale coarse grain production. Hence there is much potential for continued growth in feed imports. There is less room for growth of trade in livestock products, because East Asian production of pork, poultry meat, and eggs is relatively efficient and likely to remain so. Here the main potential is for increased trade in beef (of interest to the United States, which has a comparative advantage in grain-fed beef), and in dairy products like skim milk powder and cheese (of less interest to the United States, because other exporters dominate trade in these markets).

Nonfeed consumption of coarse grains—most of which goes into manufactured products like cornstarch and syrup—is projected to grow more slowly during the later part of the projections period. The slowdown is expected to occur as the possibilities of substitution (for example, corn sweeteners for sugar) approach exhaustion.

Prospects to 1995

Table A summarizes recent data on coarse grains, together with ERS projections to 1995/96. East Asian coarse grain production is expected to rise slightly, from 1.3 to 1.5 million tons. Meanwhile, demand is projected to increase from 31 to 48 million

tons. Feed demand accounts for 90 percent of the 17.5 million increase in projected total demand. The high level of per capita demand shown for Taiwan includes a portion (about 10 kilograms per capita in 1984/85) going to feed hogs that are exported as pork. Because Taiwan is already consuming so much coarse grain per capita, it is projected to have a relatively low income elasticity for further increases in coarse grain demand.

Table B lists the assumptions on which these results are based, as well as those underlying the projections of livestock products.

Coarse grain demand in East Asia is predominantly feed demand; moreover, the share of feed demand relative to food demand is increasing over time. So it is of interest to analyze the sources of feed demand. Although most livestock products are not themselves traded in large amounts, beef does constitute a significant U.S. export. U.S. beef sales to East Asia in 1983/84 amounted to 80,000 tons valued at \$327 million, or nearly three-fourths of all U.S. beef exports during that year.

Japan publishes the most complete set of statistics relating feed consumption to livestock. Data availability combined with the importance of Japanese trade have motivated a more thorough analysis of the Japanese situation than that in other East Asian countries. Due to the limited information and analysis pertaining to South Korea, Taiwan, and Hong Kong, these have been aggregated into a single subregion: Other East Asia. Recent data on the livestock sectors of Japan and the other East Asian countries, along with ERS projections to 1995, are shown in tables C and D.

The region's Governments tend to target their agricultural policies in terms of self-sufficiency levels, reflecting concerns for food security and saving foreign exchange. Production growth rate assumptions were made to assure "reasonable" self-sufficiency when combined with the assumptions on consumption growth.

Japan

Dairy product demand in Japan (and other countries) is primarily for milk, which is perishable and expensive to transport. Dairy

Table A--Coarse grain supply, demand, and trade

| Country / Item | 1983/84 | 1984/85 | 1990/91 | 1995/96 |
|--------------------|---------------------------------|---------|---------|---------|
| Japan | | | | |
| | Million tons | | | |
| Production | 0.4 | 0.4 | 0.4 | 0.4 |
| Imports | 20.5 | 20.4 | 26.1 | 31.1 |
| Total demand 1/ | 20.5 | 21.2 | 26.5 | 31.5 |
| (Feed demand) | (16.8) | (17.5) | (22.0) | (26.8) |
| Ending stocks | 2.4 | 2.1 | 2.6 | 3.1 |
| | Millions / Kilograms per person | | | |
| Population | 119.5 | 120.2 | 126.2 | 131.2 |
| Demand/capita | 172 | 176 | 210 | 240 |
| South Korea | | | | |
| | Million tons | | | |
| Production | .9 | .9 | 1.0 | 1.0 |
| Imports | 3.8 | 3.5 | 6.0 | 7.9 |
| Total demand | 4.7 | 4.6 | 7.0 | 8.9 |
| (Feed demand) | (3.1) | (3.2) | (5.3) | (7.1) |
| Ending stocks | .6 | .4 | .5 | .6 |
| | Millions / Kilograms per person | | | |
| Population | 40.0 | 40.6 | 44.2 | 47.5 |
| Demand/capita | 118 | 114 | 158 | 187 |
| Taiwan | | | | |
| | Million tons | | | |
| Production | .2 | .2 | .2 | .2 |
| Imports | 4.0 | 4.2 | 5.4 | 6.7 |
| Total demand | 4.3 | 4.4 | 5.6 | 6.8 |
| (Feed demand) | (4.0) | (4.1) | (5.2) | (6.4) |
| Ending stocks | .6 | .6 | .8 | 1.0 |
| | Millions / Kilograms per person | | | |
| Population | 18.7 | 19.0 | 20.9 | 22.7 |
| Demand/capita | 230 | 232 | 268 | 301 |
| Hong Kong | | | | |
| | Million tons | | | |
| Production | .0 | .0 | .0 | .0 |
| Imports | .4 | .4 | .5 | .6 |
| Total demand | .4 | .4 | .5 | .6 |
| (Feed demand) | (.3) | (.3) | (.5) | (.6) |
| Ending stocks | .0 | .0 | .0 | .0 |
| | Millions / Kilograms per person | | | |
| Population | 5.3 | 5.4 | 6.0 | 6.5 |
| Demand/capita | 66 | 65 | 84 | 93 |
| Total | | | | |
| | Million tons | | | |
| Production | 1.5 | 1.5 | 1.5 | 1.5 |
| Imports | 28.7 | 28.5 | 38.0 | 46.2 |
| Total demand | 29.9 | 30.6 | 39.5 | 47.8 |
| (Feed demand) | (24.2) | (25.1) | (33.0) | (40.9) |
| Ending stocks | 3.6 | 3.1 | 4.0 | 4.8 |
| | Millions / Kilograms per person | | | |
| Population | 183.5 | 185.2 | 197.3 | 207.9 |
| Demand/capita | 163 | 165 | 200 | 230 |

1/ Includes feed demand, food demand, and net additions to stocks. The country totals may not add to the regional total because of rounding error.

Table B--Assumptions underlying projections in tables C and D

| Item | Country and period | | | | | | | | | |
|----------------------------------|-----------------------|---------|---------------|---------|-------------|---------|---------|---------|-----------|---------|
| | Japan | | Other E. Asia | | South Korea | | Taiwan | | Hong Kong | |
| | 1985-89 | 1990-95 | 1985-89 | 1990-95 | 1985-89 | 1990-95 | 1985-89 | 1990-95 | 1985-89 | 1990-95 |
| Growth rates | Annual percent change | | | | | | | | | |
| Population | .80 | .80 | 1.53 | 1.50 | 1.50 | 1.45 | 1.75 | 1.65 | 2.00 | 2.00 |
| Real income (GDP) | 3.8 | 4.0 | 7.3 | 6.0 | 7.0 | 5.0 | 8.0 | 8.0 | 7.0 | 4.0 |
| Income elasticities of demand 1/ | Ratios | | | | | | | | | |
| Coarse grain feed use | 1.0 | 1.0 | .87 | .80 | 1.4 | 1.2 | .40 | .40 | 1.0 | .80 |
| Coarse grain nonfeed use 2/ | .90 | .06 | NA | NA | -.02 | -.13 | .10 | .10 | .50 | .40 |
| Beef | 1.2 | 1.2 | .80 | .80 | NA | NA | NA | NA | NA | NA |
| Pork | 1.0 | 1.0 | 1.0 | 1.0 | NA | NA | NA | NA | NA | NA |
| Chicken | 1.0 | 1.0 | 1.2 | 1.2 | NA | NA | NA | NA | NA | NA |
| Eggs | 0.2 | 0.2 | 0.5 | 0.5 | NA | NA | NA | NA | NA | NA |
| Dairy products | 0.5 | 0.5 | 0.9 | 0.5 | NA | NA | NA | NA | NA | NA |

Miscellaneous assumptions

The ratio of ending stocks to food plus feed demand is assumed to remain constant at the 1984/85 level. The base period for projections of population, income, demand, and livestock product supply is calendar 1984 or fiscal 1984/85. Base period coarse grain production is calculated as the average yield from 1981/82 to 1983/84, multiplied by the average area during the same period. In South Korea, yield is assumed to increase by 1.5 percent annually, and area is assumed to decline by 4,000 hectares annually. Elsewhere coarse grain yields and areas are assumed to remain constant at their base-period average levels.

Beef, pork, and chicken product weights are 0.7, 0.7, and 0.77 of carcass weights, respectively. Product weight for eggs equals 0.87 of in-shell weight, and dairy products are measured on a milk-equivalent basis.

Note: NA = not applicable. The span 1985-1989 corresponds to fiscal 1985/86-1989/90, and 1990-1995 corresponds to 1990/91-1995/96.

1/ Defined as: (percentage change in demand per capita) / (percentage change in income per capita).

2/ Japanese income elasticities are implied by assumed annual consumption growth rates of 3.5 percent in 1985-1989 and 1.0 percent in 1990-1995. South Korean income elasticities are implied by assumed annual consumption growth rates of 1.4 percent in 1985-1989 and 1.0 percent in 1990-1995.

products that are economical to transport--cheese, butter, and powdered milk--are restricted by Japanese tariff and nontariff barriers. Thus, dairy product self-sufficiency is not expected to change significantly from its present 86 to 87 percent.

Japanese poultry and pork production is already very efficient. Output can readily be expanded, since production requires little land (animals are typically kept indoors, and feed is imported). Environmental problems are of increasing concern, but it is presumed that in the near term the Japanese will develop technical solutions to control waste at reasonable cost. Egg self-sufficiency is

projected to remain at its present, high level; while pork and chicken self-sufficiencies are projected to rise slightly.

Most Japanese beef production is a byproduct of dairy herds. This source of meat will grow slowly, because it is ultimately tied to the slow growth of demand for dairy products, and because rising productivity in the dairy sector is gradually reducing the ratio of cattle to milk. About one-third of beef production now comes from a nondairy breed of cattle, called Wagyu. Wagyu beef is of high quality but is extremely expensive to produce. The slow growth in "dairy beef," coupled with the difficulties of expanding Wagyu beef production, are projected to cause a decline in

Table C--Livestock products and feedgrain demand in Japan

| Item | 1983 | 1984 | 1990 | 1995 |
|---|------|------|------|------|
| Beef Million tons, carcass weight | | | | |
| Production | .5 | .5 | .6 | .8 |
| Demand | .7 | .7 | .9 | 1.2 |
| Net imports | .2 | .2 | .3 | .4 |
| Ratios | | | | |
| Self-sufficiency 1/ | .72 | .73 | .68 | .64 |
| Feedgrain/output | 5.5 | 5.5 | 6.7 | 8.2 |
| Pork Million tons, carcass weight | | | | |
| Production | 1.4 | 1.4 | 1.9 | 2.4 |
| Demand | 1.7 | 1.7 | 2.1 | 2.6 |
| Net imports | .2 | .3 | .2 | .2 |
| Ratios | | | | |
| Self-sufficiency | .86 | .85 | .91 | .91 |
| Feedgrain/output | 3.2 | 3.2 | 3.4 | 3.4 |
| Chicken Million tons, carcass weight | | | | |
| Production | 1.3 | 1.3 | 1.7 | 2.1 |
| Demand | 1.4 | 1.4 | 1.8 | 2.2 |
| Net imports | .1 | .1 | .1 | .1 |
| Ratios | | | | |
| Self-sufficiency | .93 | .93 | .95 | .97 |
| Feedgrain/output | 2.0 | 2.0 | 1.9 | 1.9 |
| Eggs Million tons, in shell | | | | |
| Production | 2.1 | 2.1 | 2.3 | 2.5 |
| Demand | 2.2 | 2.2 | 2.4 | 2.6 |
| Net imports | .1 | .1 | .1 | .1 |
| Ratios | | | | |
| Self-sufficiency | .97 | .96 | .96 | .96 |
| Feedgrain/output | 2.4 | 2.4 | 2.3 | 2.3 |
| Dairy products Million tons, milk equivalent | | | | |
| Production | 7.0 | 7.2 | 8.2 | 9.2 |
| Demand | 8.1 | 8.3 | 9.5 | 10.7 |
| Net imports | 1.1 | 1.1 | 1.3 | 1.5 |
| Ratios | | | | |
| Self-sufficiency | .86 | .87 | .86 | .86 |
| Feedgrain/output | .23 | .23 | .23 | .23 |
| Consumption/Capita Kg/person, product weight | | | | |
| Meats | 23 | 23 | 28 | 33 |
| Eggs | 16 | 16 | 16 | 17 |
| Dairy products | 68 | 69 | 75 | 81 |
| Feedgrain demand Million tons | | | | |
| Implied above | 16.5 | 16.9 | 21.3 | 26.0 |
| Other uses | .3 | .6 | .7 | .8 |
| Total | 16.8 | 17.5 | 22.0 | 26.8 |

1/ Self-sufficiency = production/demand.

beef self-sufficiency from 73 percent in 1984 to 64 percent in 1995.

Meat, milk, and egg production can be converted into projected feed usage. Grain conversion efficiency is projected to increase slightly in the poultry sector, to be constant in the dairy sector, to drop slightly in the pork sector, and to drop significantly in the beef sector. The increase in the ratio of feed grain input to beef output comes from a movement away from extremely small-scale operations where cattle are fed fodder grown on the farm, towards larger beef operations that rely more on commercially purchased feeds. To the extent that less home-grown fodder is used, concentrate feeds must replace it.

The sum of feed usage implied by meat, egg, and milk production in table C is slightly less than the reported total feed usage. The unallocated feed represents grain used in the production of other livestock products (such as feed used for aquaculture).

Other East Asian Countries

The same procedure is used to relate livestock products to feed consumption in the other East Asian countries. These countries are modeled as one, with a single projected income growth rate, a single projected population growth rate, and other aggregate assumptions.

On average across South Korea, Hong Kong, and Taiwan, per capita demand for beef is projected to rise only 80 percent as fast as per capita income. In 1984, South Korea accounted for 72 percent of this area's beef consumption. South Korean beef production has jumped in the last 2 years, because the Government has strongly encouraged local production. It is assumed that the South Korean Government will continue to implement policies to maintain a high degree of self-sufficiency, raising domestic prices and restricting imports as required. Consumer demand will be dampened by high, indeed probably rising, real prices for beef. Without such price-augmenting policies, per capita beef demand could be expected to increase about 1.2 times as rapidly as per capita income.

Trends for livestock products other than beef are similar to those in Japan. In the

Table D--Livestock products and feedgrain demand in Other East Asia

| Item | 1983 | 1984 | 1990 | 1995 |
|---------------------------|-------------------------------|------|------|------|
| Beef | | | | |
| | Million tons, carcass weight | | | |
| Production | .1 | .1 | .2 | .2 |
| Demand | .2 | .2 | .3 | .4 |
| Net imports | .1 | .1 | .1 | .2 |
| | Ratios | | | |
| Self-sufficiency 1/ | .45 | .62 | .59 | .58 |
| Feedgrain/output | 6.5 | 6.5 | 6.5 | 6.5 |
| Pork | | | | |
| | Million tons, carcass weight | | | |
| Production | .9 | 1.1 | 1.6 | 2.1 |
| Demand | .9 | 1.1 | 1.6 | 2.2 |
| Net imports | .0 | .0 | .0 | .1 |
| | Ratios | | | |
| Self-sufficiency | .98 | 1.00 | .98 | .97 |
| Feedgrain/output | 3.5 | 3.5 | 3.5 | 3.5 |
| Chicken | | | | |
| | Million tons, carcass weight | | | |
| Production | .5 | .5 | .9 | 1.3 |
| Demand | .6 | .6 | 1.0 | 1.4 |
| Net imports | .1 | .1 | .1 | .1 |
| | Ratios | | | |
| Self-sufficiency | .86 | .85 | .86 | .93 |
| Feedgrain/output | 2.5 | 2.5 | 2.3 | 2.1 |
| Eggs | | | | |
| | Million tons, in shell | | | |
| Production | .5 | .5 | .7 | .8 |
| Demand | .6 | .6 | .8 | 1.0 |
| Net imports | .1 | .1 | .1 | .1 |
| | Ratios | | | |
| Self-sufficiency | .87 | .87 | .87 | .87 |
| Feedgrain/output | 2.6 | 2.6 | 2.5 | 2.5 |
| Dairy products | | | | |
| | Million tons, milk equivalent | | | |
| Production | .8 | .9 | 1.3 | 1.5 |
| Demand | 1.5 | 1.8 | 2.6 | 3.1 |
| Net imports | .8 | .9 | 1.3 | 1.5 |
| | Ratios | | | |
| Self-sufficiency | .51 | .52 | .50 | .50 |
| Feedgrain/output | .30 | .30 | .27 | .27 |
| Consumption/Capita | | | | |
| | Kg/person, product weight | | | |
| Meats | 20 | 21 | 30 | 37 |
| Eggs | 8 | 8 | 10 | 11 |
| Dairy products | 24 | 27 | 36 | 40 |
| Feedgrain demand | | | | |
| | Million tons | | | |
| Implied above | 6.7 | 7.5 | 10.7 | 14.0 |
| Other uses | .7 | .1 | .3 | .1 |
| Total | 7.4 | 7.6 | 11.0 | 14.1 |

1/ Self-sufficiency = production/demand.

already efficient pork and poultry sectors, self-sufficiency is projected to stay nearly constant or rise. Self-sufficiency in the inefficient beef and dairy sectors is projected to fall only modestly--mainly due to South Korea's protectionist policies for beef, and the slowdown in the growth of dairy product consumption.

The set of projected grain conversion rates shown in table D transforms livestock production in other East Asian countries into implied feed demands.

Limitations of Analysis

Like all projections, the ones summarized in this article are the product of educated guesses, based on analyses of past behavior and combined with presumptions about how the future is likely to differ from the past 1/. Readers should be aware that the weakest parts of these projections are the assumptions about future feed grain/output ratios.

Also, the projections presume that most feed grain will be composed of coarse grains. This is not necessarily true. In 1984/85, because of the availability of unusually cheap Australian wheat, South Korea used 500,000 tons of wheat as feed. Japan tends to have chronic problems of excess rice production (suppressed in the previous few years by a string of poor harvests). In the past, rather than let rice deteriorate in warehouses, the Japanese Government has subsidized its use as feed. During 1971, the peak year of this program, 1.5 million tons of rice substituted for coarse grain feed. With a return to normal weather, surplus rice is likely to start piling up once more; and in a few years, it may again be used as feed.

1/ The projections were made using spreadsheets. These are computerized tables in which some entries are calculated as a function of other entries (for example, if a population growth assumption is changed, the computer will recalculate all the table entries affected by population). Spreadsheets make it easy to test various assumptions, in part by facilitating consistency checks--for example, that implied levels of consumption per capita be plausible, and that the sum of feed usage attributed to a group of livestock product sectors be in line with projections of total feed demand.

Recently, surplus rice production has also become a problem in Taiwan. Reportedly Taiwan subsidized 300,000 tons of rice for feed use between June 1984 and March 1985, and is planning to subsidize a total of 500,000 tons for feed in 1985. ^{2/} Substituting rice for far cheaper coarse grain feed is an obviously inefficient use of resources, which could be avoided if Government-supported grain prices

were lowered to prevent surplus production. But so far, the concerned Governments have considered the political cost of drastic grain price reductions to be even greater than the economic cost of occasionally subsidizing the use of rice as feed. If East Asian countries reimpose such programs, each ton of rice feed would displace about a ton of coarse grains.

^{2/} Taiwan Feed Industry Association, *Taiwan Feed Industry Magazine*, 12, no. 5 (May 1984), pg. 39; Taiwan Council of Agriculture, *Nung-ching Chou-hsun [Agricultural Situation Weekly]* (March 2, 1985), page 18.

U.S CREDIT AND MARKET DEVELOPMENT PROGRAMS IN EAST ASIA

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Abstract: U.S. export credit programs and support for market development activities in East Asia have been large and significant in the development of this regional market. These programs now are declining in relative importance as the private sector takes on a larger role and the public commitment shifts to other markets with greater growth potential.

Keywords: Market development, export credits, East Asia, Japan, South Korea, Taiwan, Hong Kong.

Japan, South Korea, Taiwan, and Hong Kong—all former participants in the food for peace program (PL 480)—have made the transition from concessional customers to established major U.S. commercial markets. Of the three, only South Korea currently uses financing available through the Commodity Credit Corporation (CCC) GSM-102 credit guarantee program. ^{1/} South Korea has been one of the larger users of this program.

There are currently \$482 million in GSM-102 credit guarantees available in FY 1985 for the export of cotton, wheat, feed grains, soybeans, and tallow to Korea. This allocation is about the same as in previous years, and finances about 25-30 percent of that country's imports from the U.S.

^{1/} The Export Credit Guarantee Program (GSM-102) and predecessor programs are designed to facilitate U.S. agricultural exports. The GSM-102 program promotes commercial sales in cases where credit is necessary to increase or maintain U.S. exports to a foreign market and is targeted toward countries where the domestic financial institutions would otherwise be unwilling to provide financing. It is intended to stimulate U.S. bank financing of foreign purchases on credit terms of 6 months to 3 years. In a typical transaction, the foreign buyer's bank will issue an irrevocable letter of credit covering the port value of the commodity exported. In the case of nonpayment by the foreign bank, CCC will cover the guaranteed amount owed to the U.S. bank or suppliers.

However the share of GSM-102 credit guarantees to finance U.S. exports to Korea has decreased from 25 percent in fiscal 1981 to 12 percent in fiscal 1984. This reduced share reflects a larger overall program and the shift in priorities to developing countries with more market growth potential and greater need for assistance in financing imports.

For U.S. exports to South Korea, CCC export financing--initially under concessional terms and more recently under GSM-102--has expanded the U.S. position in the Asian agriculture product market significantly. It has helped maintain the United States as the primary supplier of wheat to the Korean flour millers and held the U.S. share of Korean cotton imports at about 80 percent in recent years. Credit arrangements have also been important for sales of other commodities to Korea. Even though other East Asian countries no longer participate in CCC credit programs, the program affected today's U.S. share of these markets.

In addition to credit programs, commercial trade is supported with Foreign Agricultural Service (FAS) projects and services, the export incentive programs (EIP), and support for marketing activities conducted by commodity specific cooperator organizations. Essentially, all of these market development programs are carried out under the auspices of FAS. FAS market expansion projects in Asia include programs at the consumer level such as food exhibitions and retail--point of purchase--promotions, technical assistance programs to producers or processors, and trade servicing programs that provide market information.

Table A--CCC export credit guarantees 1/, available and approved for Korea, fiscal years 1981-84

| Fiscal year | Korean programs | | Korea as a percent of total programs | |
|-------------|-------------------------|----------|--------------------------------------|----------|
| | Available | Approved | Available | Approved |
| | --- Million dollars --- | | --- Percent --- | |
| 1981 | 562.7 | 548.5 | 25 | 26 |
| 82 | 690.0 | 440.1 | 21 | 29 |
| 83 | 600.7 | 403.0 | 15 | 11 |
| 84 | 483.6 | 462.0 | 12 | 12 |

1/ GSM 101 and 102 programs.

The Agricultural Information and Marketing Services (AIMS) is the newest export expansion program. Functioning as a liaison between American companies and foreign buyers, the AIMS assist American companies in introducing their products to foreign markets as well as expanding present overseas markets. EIP's are designed to assist private firms in introducing brand products to foreign markets by underwriting a portion of the risk, thus enabling participants to gain access and make significant inroads into foreign markets.

Since their inception, the majority of market development expenditures in Asia have centered on the promotion of the wheat, soybeans, feed grain, and cotton trade through support for cooperator programs. Technical assistance and product awareness programs have been the logical focal point for FAS-led expansion efforts in Asia. However, in recent years cooperator emphasis in the relatively rapidly growing per capita income markets of Hong Kong and Japan has shifted to include such high-value items as poultry, eggs, meat, raisins, cling peaches, avocados, and processed wood products. These nonprofit trade associations, each representing a specific commodity interest, have the primary aim of promoting their respective agricultural products. Market development activities implemented by cooperator groups are financed jointly by FAS, the agricultural cooperator, and the foreign organizations involved in the import and use of the particular commodity.

The private sector provides the majority of this funding. In the now relatively developed markets of Japan, Korea, Taiwan, and Hong Kong, cooperator activities center on technical trade servicing, joint promotion efforts, press contacts, and advertising.



In recent years, the share of FAS expenditures for developed markets like Japan have declined because larger shares are devoted to emerging markets. FAS market development funds in Japan, for example, accounted for 20 percent of the total FAS market development budget in FY 82, but are now estimated at 15 percent in FY 85. This decline reflects the increasing contribution of the cooperator groups toward maintaining these important established markets and FAS's necessary shifting of U.S. agricultural export


expansion resources---targeting those potential markets that hold the highest estimated return per market development expenditure and promotional effort incurred. Conversely,


emerging promising new markets in neighboring China and Southeast Asia have received increased FAS market development support.




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